

***The impact of perceived legitimacy and social identification  
on self- and other-directed anger  
after experiencing social discrimination***

Dissertation

zur Erlangung des akademischen Grades

doctor philosophiae (Dr. phil.)

vorgelegt dem Rat der Fakultät für Sozial- und Verhaltenswissenschaften  
der Friedrich-Schiller-Universität Jena  
von Dipl. Sozialwirtin Nina Hansen  
geboren am 24.09.1974 in Flensburg

**Gutachter:**

PD Dr. Kai Sassenberg

Prof. Dr. Amélie Mummendey

**Tag des Kolloquiums:**

21. Oktober 2005

## **ACKNOWLEDGEMENTS**

As acknowledgements, I prefer to express my gratitude to every special person individually. Nevertheless, my true appreciation goes out to Kai Sassenberg – for the ‘academic freedom’, for his patience to constantly looking at the picture from a different angle, and for his feedback which helped me so much to structure my ideas and to write them down in this thesis. Thank you for being so supportive! Furthermore, I am grateful to Amélie Mummendey for her stimulating suggestions and for having the opportunity to write this thesis in the very inspiring scientific environment in Jena. Moreover, I am indebted to address my gratitude to my colleagues of the Junior Research Group ‘Motivational and cognitive determinants of social discrimination’. The content of this thesis is the product of collective efforts of inspiration and support. I very much enjoyed the fruitful discussions and collaborative work. Thanks!

## TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	3
TABLE OF CONTENTS .....	4
TABLE OF FIGURES .....	6
LIST OF TABLES.....	7
<b>1 Introduction: Social discrimination .....</b>	<b>8</b>
1.1 The impact of subtle modern prejudice .....	10
1.2 The focus of research on social discrimination.....	10
1.3 Implications for targets of social discrimination .....	12
1.4 The nature of social discrimination .....	14
1.5 Short-term effects of social discrimination .....	17
1.6 The social category as part of the self.....	20
1.7 Overview of the thesis .....	20
<b>2 The impact of social identification.....</b>	<b>23</b>
2.1 Attribution to social discrimination: The impact of causal loci.....	23
2.2 The direction of anger .....	25
2.3 Attribution as a moderator of the effect of social identification on self-directed anger .....	26
2.4 Overview .....	28
2.5 Study 1 .....	30
2.5.1 Method .....	30
2.5.2 Results .....	33
2.5.3 Discussion.....	38
2.6 Study 2.....	40
2.6.1 Method .....	40
2.6.2 Results .....	42
2.6.3 Discussion.....	47
2.7 Study 3 .....	49
2.7.1 Method .....	50
2.7.2 Results .....	52
2.7.3 Discussion.....	57
2.8 Study 4 .....	59
2.8.1 Method .....	59
2.8.2 Results .....	60
2.8.3 Discussion.....	65
2.9 Summary and discussion of Studies 1 – 4 .....	66

<b>3</b>	<b>The moderating effect of perceived legitimacy .....</b>	<b>69</b>
3.1	The concept of social discrimination.....	69
3.2	Legitimizing ideologies and beliefs .....	71
3.3	The impact of perceived legitimacy of a negative group-based treatment on self- and other-directed anger .....	77
3.4	The moderating effect of perceived legitimacy on social identification and self-directed anger .....	78
3.5	Study 5 .....	81
3.5.1	Method .....	81
3.5.2	Results .....	84
3.5.3	Discussion .....	90
<b>4</b>	<b>General Discussion .....</b>	<b>93</b>
4.1	Summary of the results .....	93
4.2	Results in light of previous research.....	94
4.3	Underlying processes.....	98
4.4	Implications for long-term consequences .....	102
4.5	Conclusions.....	105
	<b>REFERENCES.....</b>	<b>106</b>
	<b>APPENDIX.....</b>	<b>125</b>
	<b>SUMMARY .....</b>	<b>126</b>
	<b>ZUSAMMENFASSUNG .....</b>	<b>129</b>
	<b>CURRICULUM VITAE .....</b>	<b>132</b>
	<b>EHRENWÖRTLICHE ERKLÄRUNG .....</b>	<b>133</b>

## TABLE OF FIGURES

Figure 1: Schematic presentation of the examined variables in this thesis.....	28
Figure 2: Mean self- and other-directed anger (standard deviations in brackets) as a function of type of attribution to negative feedback (Study 1). ....	36
Figure 3: Self-directed anger as a function of group identification and type of attribution (Study 1). ....	37
Figure 4: Mean of self- and other-directed anger (standard deviations in brackets) as a function of type of attribution to negative feedback (Study 2).....	45
Figure 5: Self-directed anger as a function of group identification and type of attribution (Study 2). ....	46
Figure 6: Mean self- and other-directed anger (standard deviations in brackets) as a function of type of attribution to negative feedback (Study 3). ....	54
Figure 7: Structural equation model assessing both the direct and indirect effects of social and external attribution to negative feedback on social identification and self-directed anger.....	56
Figure 8: Mean self- and other-directed anger (standard deviations in brackets) as a function of type of attribution to negative feedback (Study 4). ....	63
Figure 9: Self-directed anger as a function of group identification and type of attribution (Study 4). ....	64
Figure 10: Mean self- and other-directed anger (standard deviations in brackets) as a function of type of attribution to negative feedback (Study 5). ....	87
Figure 11: Self-directed anger as a function of group identification and type of attribution (Study 5). ....	88

## LIST OF TABLES

Table 1: Standardized regression weights ( $\beta$ ), unstandardized regression weights (B), and standard errors (SE) from multiple regressions of self-directed anger (SDA) and other-directed anger (ODA) on attribution and social identification in Study 1 (N = 67). .....	38
Table 2: Standardized regression weights ( $\beta$ ), unstandardized regression weights (B), and standard errors (SE) from multiple regressions of self-directed anger (SDA) and other-directed anger (ODA) on attribution and social identification in Study 2 (N = 94). .....	47
Table 3: Standardized regression weights ( $\beta$ ), unstandardized regression weights (B), and standard errors (SE) from multiple regressions of self-directed anger (SDA) and other-directed anger (ODA) on attribution and social identification in Study 4 (N = 103). .....	65
Table 4: Attributions varying along two dimensions: personal identity – social identity and perceived illegitimacy – legitimacy. ....	77
Table 5: Schematic presentation of the hypotheses of the moderating effect of perceived legitimacy and social identification on self-directed anger. ....	80
Table 6: Standardized regression weights ( $\beta$ ), unstandardized regression weights (B), and standard errors (SE) from multiple regressions of self-directed anger (SDA) on attribution and social identification in Study 5 (N = 47). .....	89
Table 7: Standardized regression weights from multiple regressions of self-directed anger (SDA) and other-directed anger (ODA) on attribution and social identification in Study 1 (N = 67), Study 2 (N = 94), and Study 4 (N = 103). ....	125

## 1 INTRODUCTION: SOCIAL DISCRIMINATION

Experiencing an incidence of social discrimination is a fact of everyday life for members of stigmatized groups in our society such as homosexuals, immigrants, women, or people with disabilities. They are likely to face insults, harassment, rejection, overt hostility, or even physical attacks on a daily basis due to their belonging to a specific group. In a recent survey (City of Munich, 2004) 2,500 lesbians and gays indicated what kind of discrimination they are facing in daily life due to their sexual orientation. Sixty per cent reported to have been confronted with insults, 20 % said that they had been physically attacked, and 40 % even mentioned have had to face psychological pressure, harassment, and intimidation. Moreover, 35 % reported experiences of discrimination and rejection even from some family members. At the workplace 21 % said they had encountered negative experiences with their employer after their sexual orientation was known. Finally, 14 % even stated that they had experienced actual sexual harassment at work. This example illustrates how pervasive the experience of social discrimination is across a variety of situations in the daily life. These results are especially alarming because four directives of the European Union, the resulting antidiscrimination law in Germany, and the German constitution prohibit and combat discrimination based on racial or ethnic origin, religion, handicap, age, or sexual orientation. Taken into account that homosexuals are a group that is more and more present in the media (e.g., presence in soaps or commercials) and thus certainly less stigmatized than other minorities, social discrimination still has to be considered as a major problem in our society.



Although today people make an effort to behave politically correct in terms of not discriminating against someone, and given too that constitutions strengthen equal rights for each group in society, some social groups are nonetheless clearly disadvantaged. These disadvantages can be expressed both in terms of economic opportunities and outcomes such as barriers to obtaining housing, education, employment, or even proper health care (e.g., Braddock & McPartland, 1987; Cash, Gillen, & Burns, 1977; Keck, 2004; Neckerman & Kirschenman, 1991; Treiman & Hartmann, 1981; Yinger, 1994), and in terms of interpersonal interactions such as insults, exclusion, belittlement, or exposure to racist and sexist jokes (e.g., Dovidio & Gaertner, 1986; Gaertner & Dovidio, 1986; Pettigrew & Martin, 1987).

How do individuals respond to negative experiences such as these? To date, most research has studied primarily depressive mood as an immediate response (for an overview see Major, Quinton, & McCoy, 2002). In order to gain a better understanding of the immediate response to social discrimination, this thesis expands the study of immediate responses to social discrimination from depressive mood to anger, more precisely the two directions of anger: anger towards the self and anger towards another.

This chapter summarizes first the previous research in the field of social discrimination by illustrating (a) the impact of subtle modern prejudice, (b) the focus of the previous research in this field, (c) the resulting implications for the target, (d) the nature of social discrimination, (e) the short-term effects of social discrimination, and (f) the social category as part of the self. Secondly, I then specify in which ways my own research extends existing knowledge in the field of the target's affective responses to social discrimination by studying (1) self- and other-directed anger, (2) the impact of social identification, and (3) perceived legitimacy of a negative group-based treatment on anger.

### **1.1 The impact of subtle modern prejudice**

Although survey studies indicate that the level of expressed racism has declined in the United States over the last decades (e.g., Crosby, Bromley, & Saxe, 1980; Dovidio & Gaertner, 1986), at the same time other researchers (e.g., Gaertner & Dovidio, 1986; Devine, 1989) assume that negative attitudes towards African-Americans may have become more subtle or disguised but are still pervasive, even among people who consider themselves nonprejudiced. More recent research has investigated subtle forms of prejudice (e.g., Barreto & Ellemers, 2005; Operario & Fiske, 2001; Pettigrew & Meertens, 1995). These studies suggest that these more indirect forms of prejudice have come to preserve racial, ethnic, gender, and religious stratification. They are covert means of expressing prejudice that are more cool, close and indirect compared to blatant prejudice (Pettigrew & Meertens, 1995). Following Barreto and Ellemers (2005), old-fashioned sexism elicited more hostility among women and men compared to modern sexism. More interestingly, modern sexism induced more anxiety among women compared to old-fashioned sexism. Thus, there is evidence indicating that although prejudice and social discrimination seem to have become more subtle, they still affect the targets and are pervasive for them.

### **1.2 The focus of research on social discrimination**

Throughout the past twenty years, research on social discrimination moved increasingly from explaining why social discrimination is shown (the perspective of the perpetrator of social discrimination) to how social discrimination affects its targets (the perspective of the target of social discrimination). There is a large body of literature that has examined the perpetrator's perspective by studying for example interindividual differences in stereotyped beliefs, prejudicial attitudes, and a willingness to discriminate

against a variety of devalued groups, as well as studies focusing on specific emotions (e.g., Amodio & Devine, 2005; Banaji & Greenwald, 1994; Bodenhausen, Macrae, & Gast, 1998; Crosby et al., 1980; DeSteno, Dasgupta, & Bartlett, 2004; Devine, 1989; Dovidio, Gaertner, & Nier, 2004; Greenwald, Banaji, & Rudman, 2002; Leach, Spears, & Branscombe, 2003; Monteith & Voils, 2001; Mummendey, 1995; Mummendey & Otten, 2004; Mummendey, Otten, Berger, & Kessler, 2000; Mummendey & Wenzel, 1999; Otten, Mummendey, & Blanz, 2001). In contrast, some researchers have begun to investigate the target's perspective by concentrating for example on the responses when coping with being devalued by society due to a specific group membership (e.g., Allport, 1954/1979; Branscombe, Schmitt, & Harvey, 1999; Crocker & Major, 1989; Crosby, 1982; Cross, 1991; Dion & Earn, 1975; Major, Quinton, McCoy, & Schmader, 2000; Major et al., 2002; McCoy & Major, 2003; Miller & Major, 2000; Steele & Aronson, 1995; Swim & Stangor, 1998).

Individuals differ in the extent to how they perceive and respond to a situation where they face social discrimination. Thus, further research has studied the impact of these interindividual differences, such as social identification (Branscombe et al., 1999; Crocker, Voelkl, Testa, & Major, 1991; Jetten, Branscombe, Schmitt, & Spears, 2001; Major, Quinton, & Schmader, 2003; McCoy & Major, 2003; Mossakowski, 2003; Operario & Fiske, 2001; Sellers & Shelton, 2003; Wong, Eccles, & Sameroff, 2003), sensitivity to race-based rejection (Ayduk, Downey, & Kim, 2001; Ayduk, May, Downey, & Higgins, 2003; Ayduk, Mendoza-Denton, Mischel, Downey, Peake, & Rodriguez, 2000; Levy, Ayduk, & Downey, 2001; Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002), and stigma consciousness (Brown & Pinel, 2003; Pinel, 1999, 2002, 2004). To study interindividual differences seems worthwhile especially following the advice of some scholars. Shelton (2000, p. 375) recommends studying targets of social discrimination as "functioning individuals who can influence the intergroup dynamics". As a consequence, Sassenberg and Hansen (2005, p. 3) suggest it is circumspect to study victims of social

discrimination “as motivated human being, and not as objects of discriminatory acts”. These recommendations both suggest examining the targets as individuals who are actively responding to the experience of social discrimination.

To sum up, most of the research has so far paid attention to the perpetrator’s perspective of social discrimination. Thus, this thesis focuses on the target’s perspective of social discrimination and, more precisely, on her/his active response to social discrimination. The investigation of affective responses especially in this context is important. Following appraisal theories of emotions (e.g., Frijda, 1996; Roseman, Wiest, & Swartz, 1994), affect is eliciting action tendencies. Otherwise if a target does not act to a negative treatment this ‘non’-behavior is likely to lead to health problems in the long run (for an overview see Clark, Anderson, Clark, & Williams, 1999).

### **1.3 Implications for targets of social discrimination**

What are the psychological consequences of being a target of social discrimination? How does facing frequent discrimination influence a discriminated individual? There is substantial evidence to suggest that discriminatory treatment is harmful for targets at multiple levels (for overviews see Clark et al., 1999; Crocker & Major, 1989; Major et al., 2002; Nolen-Hoeksema & Girgus, 1994). Most research has focused on the impact of social discrimination on depressive mood as an immediate response (Major, Kaiser, & McCoy, 2003; for an overview see Major et al., 2002; McCoy & Major, 2003). Research has shown that the experience of social discrimination does not only have pervasive implications for the target in the short run but has also severe implications in the long run (Allison, 1998; Abe & Zane, 1990; Aneshensel, Clark, & Frerichs, 1983; Branscombe et al., 1999; Clark et al., 1999; Flacke, Amaro, Jenkin, Kunitz, Levy, Mikon, & Yu, 1995; Mossakowski, 2003;

Noh & Kaspar, 2003; Nolen-Hoeksema & Girgus, 1994; Postmes & Branscombe, 2002; Wong et al., 2003). The experience of disadvantage in terms of economic and interpersonal outcomes is threatening and compromising to the physical well-being of the targets of social discrimination (e.g., Allison, 1998; for an overview see Clark et al., 1999). Depression is more prevalent in members of some discriminated groups (Mossakowski, 2003; Noh & Kaspar, 2003; Wong et al., 2003). For example, studies generally find higher levels of depressive symptomatology in African-Americans than in European-Americans<sup>1</sup> (for a discussion see Aneshensel et al., 1983), in Asian-Americans than in European-Americans (e.g., Abe & Zane, 1990), and in women than in men (for a review see Nolen-Hoeksema & Girgus, 1994). Moreover, African-Americans experience more physical health problems than European Americans, including shorter life expectancies, higher infant mortality and a greater incidence of heart disease (Allison, 1998; Flacke et al., 1995). Social discrimination is a possible and likely cause for these health problems (Clark et al., 1999). In short, there is little doubt that being a target of social discrimination poses a significant threat at multiple levels (i.e. psychological and physical). Thus in the long run, experiencing social discrimination leads to severe health problems for the targets.

To conclude, being a target of social discrimination has severe consequences in terms of depressive symptomatology and health problems. However, less is known about the immediate affective response to the experience of an incidence of social discrimination except for depressive mood. The long-term consequences are most likely an outcome of 'aggregated immediate affective responses'. Thus, this thesis focuses on affect as an immediate response to social discrimination. Before becoming more specific

---

<sup>1</sup> When controlling for differences in socioeconomic status, these group differences often weaken and disappear. An explanation for this effect is that lower socioeconomic status is likely to also be a consequence of a stigma.

about the affect studied in this thesis, it is necessary to differentiate the concept of social discrimination a little further.

### **1.4 The nature of social discrimination**

Until now the concepts of social stigma and social discrimination have been treated interchangeably in this thesis. In order to understand the underlying processes and short-term effects of experiencing an incidence of social discrimination, it is necessary to focus on the conditions that define this experience. Therefore, social stigma will be defined in a first step and then distinctions are made between social stigma and the concept of social discrimination. Finally, conclusions are drawn for the current research.

#### *Social stigma*

Research has shown that in many cases there is widespread agreement within a culture about both the devalued status of a group, and the negative stereotypes attributed to individuals who belong to this specific group (for a discussion see Jost & Banaji, 1994). These negative stereotypes are for example already learned by the age of three to devalue people with dark skin color (Singleman & Singleton, 1986) or people who are overweight (Dion & Berscheid, 1974). Often these stereotypes are held so widely that they are identified not as stereotypes, but rather as 'facts' (Bodenhausen & Macrae, 1998). Targets of social discrimination are often members of groups that are devalued in our society due to an assumed attribute of their group. In other words, they are stigmatized. Defining a single feature of social stigma, Crocker and colleagues (Crocker, Major, & Steele, 1998) argue that stigmatized individuals possess (or are believed to possess) some attribute or characteristic that conveys a social identity which is devalued in a particular social context.

Only attributes that convey a negative social identity are stigmatized. The boundaries of one category may be relatively clear, for the example for the category of women, but more diffuse for another, for the example for the category of disfigured individuals.

In sum, a social stigma is a function of having an attribute that conveys a devalued social identity in a particular context. In other words, the possession of a particular attribute might lead an individual to be stigmatized in one context but not in another. In essence, the devalued social identity in a particular context is not linked to something essential belonging to the stigmatized person. It depends mainly on the specific context as Crocker and colleagues (1998, p. 506) have stated: “[...] the problem of stigma does not reside in the stigmatized attribute, or the person who possesses that attribute, but in the unfortunate circumstance of possessing an attribute that, in a given social context, leads to devaluation.”

Social stigmas are very diverse. Rather than trying to identify types of stigma, researchers have tried to specify dimensions along which stigmatizing conditions differ (e.g., Jones, Farina, Hastorf, Markus, Miller, & Scott, 1984). One dimension is the visibility of the stigma. Visible stigmas are for example gender, race, obesity, or disfiguring conditions that cannot be hidden easily from others. Concealable stigmas can not be seen such as university affiliation, religious affiliations, homosexuality, or many illnesses. Another dimension is the controllability of the stigma. Stigmatizing conditions are controllable when the stigmatized individual is responsible for the condition, or when the condition results from or could be eliminated by the individual (Weiner, Perry, & Magnusson, 1988). For example, research has shown that being overweight is regarded as controllable by the stigmatized individual, because that individual is responsible for her or his excess weight. On the other hand, blindness is considered to be uncontrollable by the stigmatized individual, because that individual is not responsible for her or his condition. Consequently, depending

on the controllability of own stigma, a stigmatized individual perceives a negative treatment due to own stigma as legitimate or illegitimate. Crocker, Cornwell, and Major (1993) studied the attribution style of overweight women. They found that compared to standard-weight women, overweight women were significantly more likely to attribute interpersonal rejection by a male partner to their weight, but were not more likely to attribute rejection to their partner's personality or his concern with appearance. Crocker and Major (1994) argued that because weight is seen as controllable, overweight women perceived their rejection due to their weight as justified differential treatment rather than social discrimination. As a result, the perceived controllability of the stigma is likely to affect how a stigmatized individual responds to discrimination because of the stigma (Crocker, Cornwell, & Major, 1993; Crocker & Major, 1994).

Results indicate devastating consequences in that stigmatized individuals accept the inequality and social discrimination, although it is against their interest (for a review see Taylor, Wright, & Porter, 1994). They endorse legitimizing beliefs to justify the negative treatment and blame themselves rather than others or their situation (Jost & Major, 2001). To date, previous research on social stigma has studied such legitimizing beliefs as differing interindividual differences, for example the belief in a just world (Lerner, 1980; Lerner & Miller, 1978), in personal control (e.g., Major & Schmader, 2001), or the myth of stereotypes (e.g., Crocker et al., 1998; Jost & Banaji, 1994; Jost & Hunyady, 2002), among others.

To conclude, the important feature of stigmatization is the possibility that one will be the target of a negative treatment because of one's belonging to a specific group that is linked with a specific attribute (Crocker et al., 1998; Goffman, 1963; Jones et al., 1984). Furthermore, a negative treatment due to own stigma can be perceived as legitimate. This is the case when the stigmatized individual endorses legitimizing beliefs that justify the negative group-based treatment (e.g., Crocker & Major, 1994).



### *Social discrimination*

To encompass the concept of social stigma within the concept of social discrimination, it is necessary to focus on the criteria defining social discrimination. According to Major and colleagues (2002, p. 262), “[...] an attribution to discrimination is a judgment with two components: (1) the individual (or group) was treated unjustly and (2) the treatment was based on social identity/group membership” (see also Mummendey & Otten, 2004). Consequently, only if the two criteria of perceived illegitimacy and attribution to own group membership of a negative treatment are fulfilled it should be called an incidence of social discrimination.

In conclusion, according to this definition an incidence of social discrimination will be perceived as illegitimate negative treatment, whereas a negative treatment due to own stigma can also be perceived as legitimate. Thus, the perceived legitimacy is a crucial factor for the current research on the impact of a negative group-based treatment.

### **1.5 Short-term effects of social discrimination**

Most research has focused on the impact of social discrimination on depressive mood as an immediate response (Major et al., 2003a; for an overview see Major et al., 2002; McCoy & Major, 2003; Schmitt & Branscombe, 2002a). For example, McCoy and Major (2003) studied the affective response of women. Female participants were invited to participate in a laboratory study on first impressions. The participants were required to give a short speech. Afterwards they received negative feedback from a fictive male participant. Depending on the condition they learned after having received the feedback that the male participant was either prejudiced against women or they were given no such information. After being exposed to the manipulation of negative treatment, the participants had to indicate their depressive mood as a

dependent variable. The results of the study show that women evaluated by a sexist male reported less depressive mood than women evaluated by a nonsexist male. Thus, this study has examined depressive mood as response to a negative treatment. In another study, Major and colleagues (2003) employed a different paradigm (adapted from Schmitt & Branscombe, 2002a, Study 2). Male and female students read a vignette in which a male professor had rejected their request to enroll on a course. One third read that the professor was 'sexist' and had excluded only members of the participant's gender (i.e. 'prejudice' condition). Another third read that the professor was 'a jerk' and had excluded everyone who tried to join the class ('everyone excluded' condition). The remaining third read that the professor 'thought they were stupid' and had excluded only the participant from the course ('personal rejection' condition). After reading the vignettes, participants were asked to indicate the levels of their depressive mood. As expected, participants reported fewer depressive mood in the prejudice condition compared to the personal rejection condition. Participants in the personal rejection condition also anticipated feeling significantly more depressed than those in the everyone excluded condition. The means between the prejudice and everyone rejected condition did not differ from each other. Thus, depressive mood as immediate response to a negative treatment has been studied in experimental settings as well as in vignette studies (for additional examples see Kobrynowicz & Branscombe, 1997; Schmitt & Branscombe, 2002a).

Further research has studied affective responses to long term negative treatment. Relative deprivation theory suggests that it is social comparison and not objective reality which determines how satisfied or dissatisfied people are with what they have (e.g., Crosby, 1976; 1982; Runciman, 1966; Stouffer, Suchman, DeVinney, Star, & Williams, 1949). People can compare themselves with other individuals (egoistic relative deprivation) or between their group and other groups (fraternalistic relative deprivation). Fraternalistic relative

deprivation is the sense that one's group is not as successful as other groups (Runciman, 1966). Theories of relative deprivation assert that whether or not individuals deprived of valued outcomes will feel anger or resentment depends, in part, on whether they blame others or themselves for not having those outcomes (e.g., Crosby, 1976; 1982). Individuals who are deprived and blame others for their disadvantage will experience anger, whereas individuals who blame themselves will experience resentment. Thus, this line of research studies the affective responses of anger and resentment as a result of long-term deprivation (i.e. a possible outcome of social discrimination) and furthermore, suggests that these two affects are distinct from each other and are triggered differently by the blame for the received outcome.

Moreover, research on relative deprivation focuses on explaining the impact of long-term experience of disadvantage, whereas research on the impact of social discrimination (i.e. in this thesis) addresses the experience of single incidences of social discrimination. Long-term consequences of disadvantage are severe, as documented in a vast body of literature (for an overview see Clark et al., 1999), whereas short-term consequences have been to date less well researched.

To sum up, the impact of social discrimination has been primarily studied on depressive mood (e.g., Branscombe et al., 1999; McCoy & Major, 2003) and less on anger (e.g., Swim, Hyers, Cohen, & Ferguson, 2001). Therefore, this thesis examines the immediate affective response of anger to a negative treatment. However, according to Weiner (1985), anger can be directed at the self as well as at someone else. Previous research has ignored self-directed anger. Thus, both directions of anger – self- and other-directed anger – are examined in this thesis.

### **1.6 The social category as part of the self**

The social identity plays a crucial role in the attribution of a negative treatment to social discrimination. Social identification indicates how important the group membership is for one individual. High identified individuals make more attributions to social discrimination than low identified individuals (Major et al., 2003b). Thus, social identification has been studied to gain a better understanding of the interindividual differences in depressive mood as a response to social discrimination (e.g., Branscombe et al., 1999; McCoy & Major, 2003). So far, contradictory findings do not allow to determine the exact impact of social identification (for details see Chapter 2, p. 26).

So far the main focus has been on either research on social stigma and the impact of other interindividual differences (e.g., belief in a just world, personal control) as moderators, or on research on social discrimination investigating the impact of social identification on depressive mood. To my knowledge, the impact of social identification under the following conditions has not been studied; when an individual is (a) confronted with a negative treatment resulting from own group membership, when (b) this treatment is perceived to be legitimate and when (c) anger is the affective response. Thus, this thesis aims to fill this gap by studying the impact of perceived legitimacy of negative group-based treatment and social identification on self- and other-directed anger.

### **1.7 Overview of the thesis**

To sum up, psychologists agree that being a target of social discrimination is associated with negative psychological and physiological consequences (for an overview see Clark et al., 1999). Research on the immediate affective consequences of being a target of social discrimination, which is most likely a premise of more severe long-term consequences, has

focused mainly on depressive mood (for an overview see Major et al., 2002). So far, anger – and especially self-directed anger – has not been taken into account. Given the importance of anger as a direct affective reaction, this thesis investigates the impact of social discrimination on self- and other-directed anger.

Research has shown that social identification contributes significantly to the prediction of the impact of social discrimination on depressive mood (e.g., Branscombe et al., 1999; McCoy & Major, 2003). Therefore, it is particularly worthwhile to extend the previous research by investigating the impact of social identification on self- and other-directed anger when facing a negative treatment.

Furthermore, previous research on social stigma has stressed the importance of the impact of interindividual differences in the experience of own stigma. Specific beliefs are likely to legitimize a negative treatment that is attributed to own group membership. Thus, including perceived legitimacy as a further factor will extend the existing research on the impact of a negative group-based treatment on self- and other-directed anger.

In summary, the goals of the studies presented in this thesis are to gain a better understanding of the affective response to social discrimination by investigating (1) the impact on anger, (2) the impact of social identification in this context, and (3) the impact of perceived legitimacy of a negative group-based treatment and social identification on anger. More precisely, two types of anger are studied: anger towards oneself and anger towards someone else. In a series of five studies the goals are put forward to be empirically tested.

In Chapter 2, entitled “*The impact of social identification*”, four studies are presented that are designed to test the first two goals. More specifically, Study 1 and 2 test the impact of social discrimination and social identification on anger in two different social groups, Study 3 examines the causal direction of the relation between social identification and anger, and finally Study 4 aims to extend the findings of Studies 1-3 from scenario studies to real life.

In Chapter 3, entitled “*The moderating effect of perceived legitimacy*”, it is argued that it is also possible that an individual perceives an experienced incidence of social discrimination as legitimate. The third goal mentioned above is tested by manipulating the perceived legitimacy of a negative group-based treatment in Study 5 to examine the impact of social identification on anger. This step extends the existing research in the field of social stigma and social discrimination by studying the impact of perceived legitimacy of a negative group-based treatment and social identification on anger.

Chapter 4, entitled “*General discussion*”, summarizes and discusses the main findings of the studies in the light of previous research on depressive mood. Furthermore, some ideas for the underlying processes of the effects found are outlined, and suggestions for future research that could enlighten our understanding of the target’s perspective of social discrimination are made. Moreover, in line with the results of this thesis, implications for targets’ behavioral responses and health problems are presented. There follows a discussion on the impact of perceived legitimacy in the short and long run. Finally, the conclusions of this thesis are drawn.

## 2 THE IMPACT OF SOCIAL IDENTIFICATION<sup>2</sup>

Being treated badly is a negative experience for an individual. This experience is aversive and hurts. In turn, it is likely to elicit anger as an affective response to this treatment. Anger is a primary emotion that is an immediate and direct response to the environment and furthermore, it serves to defend oneself against attacks (Frijda, 1986). There is evidence that the perception of injustice is associated with the affective response of anger (for a review see Miller, 2001). Moreover, anger is also a frequent affective response to perceiving that one is a target of social discrimination (Swim et al., 2001). According to Weiner (1985), anger can be directed at oneself (self-directed anger) or at someone else (other-directed anger). If the cause of the bad treatment that an individual faces is attributed to another person, the individual will be angry with that person. If the cause of this negative treatment can be attributed to oneself, however, the individual will most probably be angry with the self. If the cause of a bad treatment is attributed to the group membership by the target this is an incidence of social discrimination. How an attribution to social discrimination is likely to impact on anger will be discussed in detail in the following.

### 2.1 Attribution to social discrimination: The impact of causal loci

In order to be called social discrimination, a negative treatment must fulfil (as mentioned above, p. 15) two criteria besides being negative: (a) it needs to be perceived as illegitimate by the target and (b) it is expressed due to the group membership of the target (Major et al., 2002; Mummendey & Otten, 2004). Individuals who are targets of social discrimination face an attributional ambiguity. They can attribute the negative treatment to different causes: either

---

<sup>2</sup> This chapter has been modified and submitted for publication (Hansen & Sassenberg, 2005).

to prejudice, or to their own responsibility (e.g., Crocker et al., 1991; Crocker et al., 1993; Major et al., 2003a). Crocker and Major (1989; Crocker et al., 1991) assume that attributions to prejudice are external attributions because *another person* behaved in a prejudiced manner. In contrast, Schmitt and Branscombe (2002a) suggest that attributions to prejudice have an external and an internal component: the prejudiced perpetrator behaving illegitimately as external cause, and the target's group membership triggering the perpetrator's behavior as an internal cause. The later aspect of the attribution is internal because the group is part of the self: the social identity (Tajfel & Turner, 1979). These contradictory predictions have so far been tested with depressed emotions as dependent variable. In order to be able to differentiate between these two assumptions concerning the external and internal components of an attribution to prejudice, it is necessary to investigate if and how the impact of negative treatment attributed to prejudice differs (due to its internal component) from the impact of exclusively externally attributed causes for negative treatment. Such an exclusively external cause would be merely inappropriate behavior of another person that shows no relation whatsoever to one's group membership. Regarding the design of a study, besides a condition with attribution to prejudice and a condition with attribution to exclusively external causes, a condition allowing for a pure internal attribution (own responsibility) should be included in the comparison in order to test for differences between all three conditions. As an attribution to prejudice fulfils the criteria of social discrimination – the negative and illegitimate treatment being due to the target's group membership – in the following we will refer to this condition as “attribution to social discrimination”.

In conclusion, in line with Schmitt and Branscombe (2002a) I assume that an attribution to social discrimination has an external as well as an internal component, i.e. the target's group membership. Therefore, an appropriate test of the impact of social identification on anger should include three conditions:



(a) attribution to social discrimination versus (b) external attribution versus (c) internal attribution (see Figure 1).

## 2.2 The direction of anger

The current research studies the impact on the two types of anger. Only a few studies have tested the impact of social discrimination on other-directed anger, i.e. as hostility towards an outgroup (e.g., Branscombe et al., 1999; Mackie, Devos, & Smith, 2000; McCoy & Major, 2003; Wong et al., 2003). However, research on social discrimination has so far neglected the fact that anger can also be directed at oneself. Weiner (1985) has suggested that the causal loci of an attribution do not only have a different impact on affect, but also elicit affect directed at different sources. Depending on the causal loci anger will be either directed at oneself (e.g., I am angry with myself), or at someone else (e.g., I am angry with someone else). An external attribution to a negative treatment is likely to elicit anger with the source of treatment (other-directed anger), whereas an internal attribution is likely to result in anger with oneself, i.e. due to one's own behavior (self-directed anger). An attribution to social discrimination will have a similar impact on other-directed anger as an external attribution due to the external component and the notion of illegitimacy of this attribution. However, its impact on self-directed anger is less clear and will be discussed in detail in the next section. The aim of this research is to study the impact of attributions of negative treatment on both types of anger (self- and other-directed anger).

*Main effect hypothesis of self- and other-directed anger:*

*Self-directed anger* is predicted to be higher when the cause of a negative treatment is attributed internally compared to when it is attributed externally. *Other-directed anger* is expected to be higher when the cause of a negative treatment is attributed to social discrimination and external causes compared to when it is attributed internally.

### **2.3 Attribution as a moderator of the effect of social identification on self-directed anger**

The impact of social discrimination on self-directed anger is not that clear. Research on the impact of social discrimination on depression has stressed the moderating effect of social identification on affective responses. Hence, the internal component of an attribution to social discrimination varies because individuals differ in the extent to which they include a group in their self-concept (Tajfel & Turner, 1979). After an attribution to social discrimination, these interindividual differences in social identification are likely to determine the strength of the effect on self-directed anger.

Two positions with contradictory assumptions concerning the impact of social identification on affect in targets of social discrimination are prominent in the literature. On the one hand, McCoy and Major (2003) argue that higher levels of social identification lead to higher levels of depression after social discrimination. The basis of their hypothesis is that one's group membership forms a larger part of the self the higher one's social identification with the discriminated group is. Therefore, social identification only has a self-protecting effect for individuals with low group identification (i.e., who do not consider their group membership as a central part of their self-concept). Two recent studies of McCoy and Major (2003) showed that women low in gender identification and Latin-Americans low in ethnic identification experienced less depressed

emotions when a negative feedback was attributed to social discrimination compared to attributing it to the inappropriate behavior of the perpetrator.

On the other hand, several researchers have suggested that a strong social identification with one's group can serve as a psychological buffer against the negative consequences of social discrimination (e.g., Cross, 1991; Phinney, 1990, 1996). They assume that feeling connected with one's group compensates for the negative consequences of social discrimination. Similarly, Branscombe and colleagues (1999) argue that high social identification buffers the individually experienced consequences of discrimination against one's group by means of a feeling of belonging to that group. This means that highly identified individuals can still feel good about themselves when being discriminated because they focus on positive aspects of their group membership. Branscombe and colleagues (1999) found that higher identification with one's ingroup leads to less depressed emotions. They were able to show that racial identification compensated the negative impact of perceived social discrimination on well-being of African-Americans.

Additional evidence for the buffering effect of social identification on depression has been provided by several researchers (e.g., Mossakowski, 2003; Sellers & Shelton, 2003; Wong et al., 2003), indicating an overall effect of high social identification protecting the individual when being confronted with social discrimination. The only exception stems from research by McCoy and Major (2003). Hence, I expect a buffering impact of social identification on self-directed anger when experiencing social discrimination but not on other-directed anger. This should be the case because social identification is related to the self and not to the perpetrator. Also, further research (e.g., McCoy & Major, 2003; Major et al., 2003a; Crocker et al., 1991) has shown that social identification has no effect on anger toward those who are discriminating against oneself.

*Attribution x Identification interaction hypothesis on self-directed anger:*

Thus, the type of attribution to negative feedback is predicted to moderate the impact of social identification on self-directed anger such that stronger identification reduces self-directed anger only after an attribution to social discrimination but not after an external or internal attribution.

It is not predicted that attribution moderates the impact of social identification on other-directed anger, as social identification captures the relation between ingroup and the self which does not necessarily relate to other social targets.

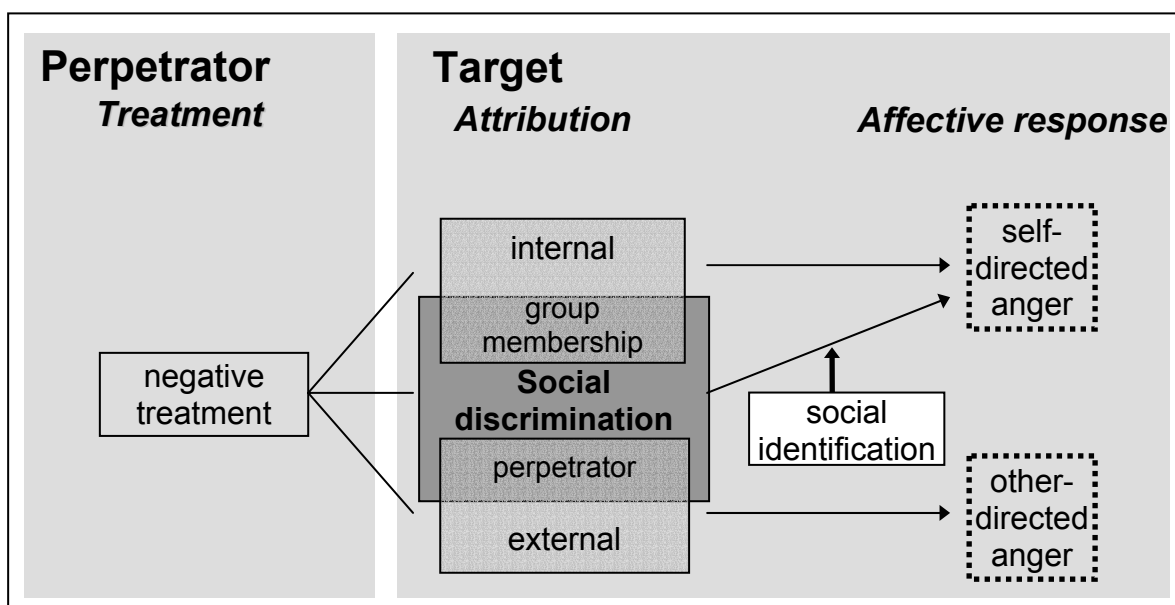


Figure 1: Schematic presentation of the examined variables in this thesis.

## 2.4 Overview

The first four studies of this thesis aim at showing that (a) the impact of the type of attribution to negative feedback on self- and other-directed anger and (b) the moderating impact of the type of attribution and social identification on self-directed anger. In Studies 1-3 participants were told that another ingroup

member received negative feedback due to different causes. This information constituted a manipulation of three types of attribution: (a) an attribution to social discrimination (i.e. an attribution to one's group membership), (b) an external attribution (i.e. an attribution to the source of feedback), and (c) an internal attribution (i.e. an attribution to the person's own behavior) as a control condition. In Study 4 a different paradigm was used by asking participants to recall a situation in which they personally had experienced a negative treatment. This different paradigm was used in order to also test my predictions using real personal experiences. The design of Study 1, 2, and 4 were cross-sectional. In Study 3 a cross-lagged design was used which allows for a thorough investigation of the causal direction concerning the relationships between the type of attribution, social identification, and self-directed anger.

## 2.5 Study 1

### 2.5.1 Method

#### *Design and sample*

An experiment with three conditions (attribution to social discrimination vs. external attribution vs. internal attribution) was conducted. Social identification was measured as independent and self- and other-directed anger as dependent variables. Participants were female undergraduates of the University of Jena ( $N = 67$ ; age:  $M = 23$ , range: 18-33). They received a bar of chocolate for compensation.

#### *Procedure*

Female students were recruited for a study concerning the experience of giving a presentation in class. No explicit reference to gender was made during the recruitment. They were asked to imagine being in the position of the person in the vignette presenting a paper in class and receiving negative feedback (a bad grade) afterwards. Depending on the experimental condition, the person in the scenario received a bad grade either due to her gender (*attribution to social discrimination*), due to the professor's unfair behavior (*external attribution*), or due to her own performance (*internal attribution*). In the attribution to social discrimination condition participants were told that the professor was known for grading male students better than female students and that other female students received a bad grade the last semester, too. In the external attribution condition the professor was described as arrogant and distracted while giving the feedback. Both manipulations followed those used by Schmitt and Branscombe (2002a; Study 2) and Major et al., (2003). In the internal attribution condition the person in the scenario was described as not well enough prepared and therefore, received a bad grade due to her poor performance.

After having read the vignette, the participants completed a questionnaire that included measures of anger, gender identification, and perceived illegitimacy as well as manipulation checks. Gender identification was assessed after the manipulation in order to avoid a social category becoming salient due to the assessment and triggering an attribution to social discrimination regardless of the experimental condition. Afterwards participants were thoroughly debriefed, thanked, and given their chocolate bar.

### Measures

**Anger.** Participants rated the extent to which each item would represent their affective response to the negative feedback after the presentation described in the scenario. They had to indicate how they would feel in the described situation by using a 9-point scale (1 for *does not apply at all* to 9 for *applies very much*). Two types of anger were assessed. *Self-directed anger* was measured with four items (angry with myself, mad at myself, furious with myself, displeased with myself). The scale revealed a high internal consistency ( $\alpha = .94$ ). The *other-directed anger* scale consisted of the same four items directed at the professor (angry with the professor, mad at the professor, furious with the professor, displeased with the professor), likewise demonstrating a very good reliability ( $\alpha = .95$ ). Self- and other-directed anger did not correlate (attribution to social discrimination:  $r = -.07$ ,  $N = 22$ ,  $p = .75$ ; external attribution:  $r = .10$ ,  $N = 22$ ,  $p = .67$ ; internal attribution:  $r = .05$ ,  $N = 23$ ,  $p = .81$ ).

**Social identification.** Six items assessed the social identification with the group of women on a 7-point scale (1 for *does not apply* to 7 for *does apply very much*, e.g. "I identify myself with the group of women",  $\alpha = .76$ ). These items were chosen from Luthanen and Crocker (1992; German version Bohner & Sturm, 1997) to assess social identification in a broad manner.

*Manipulation checks.* On a 7-point scale (1 for *does not apply at all* to 7 for *applies very much*) participants were asked to indicate to what extent they would attribute the bad grade in the scenario to different causes, namely their gender (attribution to social discrimination), the professor (attribution to social discrimination and external attribution), and themselves (internal attribution). As an attribution to social discrimination includes both an external component, i.e. the prejudiced behavior of the perpetrator, as well as an internal component, i.e. the target's group membership, both components should be high when attributing a negative feedback to social discrimination. According to Weiner (1995), attributing the outcome to a person is not the same as holding a person responsible for an outcome. He argues that even if the cause of an adverse event is located within a person and the cause is controllable by the individual, it is still possible that a judgment of responsibility will not be rendered if there are mitigating circumstances that negate moral responsibility. This is likely to happen when attributing a negative treatment to social discrimination due to the internal component of this attribution – the target's group membership. Moreover, Weiner theorizes that it is the judgments of responsibility (and/or blame, in the case of negative outcomes) rather than judgments about the locus of causality (internal vs. external) that are the critical determinants of emotion. Thus, in order to check the attribution manipulation we asked for the responsibility of the group membership of the target, the perpetrator, and the personal performance of the target.

Furthermore, illegitimacy was measured with a single item: "In your opinion, how legitimate is the fact that you would have received a C- for your presentation in the scenario?" (7-point scale, ranging from 1 for *legitimate* to 7 for *illegitimate*).



### 2.5.2 Results

#### *Social identification*

In all three conditions social identification was well above the midpoint of the scale, indicating that the social category was meaningful (all  $t$ s  $> 5.29$ , all  $p$ s  $< .001$ ). Social identification was higher in the internal attribution condition ( $M = 5.88$ ,  $SD = .95$ ) than in the external attribution condition ( $M = 5.08$ ,  $SD = .96$ ; post-hoc<sup>3</sup>:  $p = .04$ ). The social discrimination condition did not differ from the other two conditions ( $M = 5.55$ ,  $SD = 1.13$ ; post-hoc: both  $p$ s  $> .33$ ),  $F(2,64) = 3.49$ ,  $p = .04$ . Thus, the social category was meaningful to the participants, and the social identification differed significantly, but only to a small extent, between the external and internal attribution condition.

#### *Manipulation checks*

In order to check for the impact of the manipulation, participants were asked to indicate the extent to which they would attribute the negative feedback in the scenario to different causes. As intended, participants regarded their gender as the reason for the negative feedback to be more important in the attribution to social discrimination condition than in the other two conditions (post-hoc: both  $p$ s  $< .001$ ; attribution to social discrimination:  $M = 5.00$ ,  $SD = 1.58$ ; external attribution:  $M = 2.00$ ,  $SD = 1.18$ ; internal attribution:  $M = 1.13$ ,  $SD = .63$ ),  $F(2,62) = 63.69$ ,  $p < .001$ . The means between the external and internal attribution condition differed marginally ( $p = .06$ ). Furthermore, the professor was regarded as more responsible for the negative feedback in the attribution to social discrimination and external attribution condition than in the internal attribution condition (post-hoc: both  $p$ s  $< .001$ ; attribution to social discrimination:  $M = 5.82$ ,  $SD = 1.56$ ; external attribution:  $M = 5.91$ ,  $SD = 1.02$ ; internal attribution:  $M = 2.48$ ,  $SD = 1.83$ ),  $F(2,63) = 9.72$ ,

---

<sup>3</sup> All reported post-hoc tests are Scheffé-tests.

$p < .001$ . This reveals, as intended, the external component of an attribution to social discrimination. Moreover, the self was indicated to be more responsible for the feedback in the internal attribution condition compared to the other two conditions (post-hoc: both  $ps < .03$ ; internal attribution:  $M = 5.04$ ,  $SD = 2.38$ ; attribution to social discrimination:  $M = 3.29$ ,  $SD = 1.71$ ; external attribution:  $M = 2.73$ ,  $SD = 1.20$ ),  $F(2,64) = 37.75$ ,  $p < .001$ .

The perceived illegitimacy of the negative feedback did not differ between the attribution to social discrimination ( $M = 5.96$ ,  $SD = 1.40$ ) and the external attribution condition ( $M = 6.00$ ,  $SD = 1.07$ ; post-hoc:  $p = .99$ ). However, as intended, perceived illegitimacy did differ between these two conditions and the internal attribution condition ( $M = 2.44$ ,  $SD = 1.80$ ; post-hoc: both  $ps < .001$ ),  $F(2,64) = 44.41$ ,  $p < .001$ .

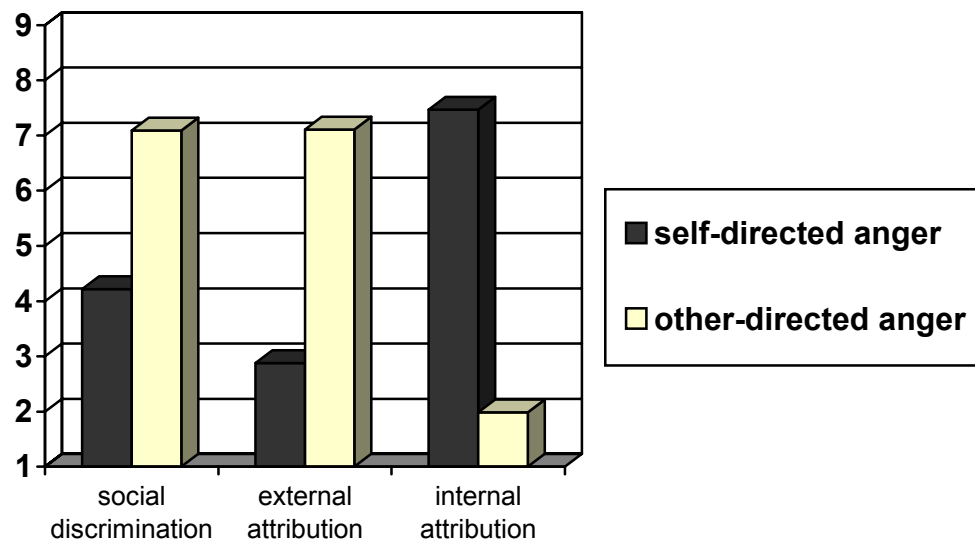
Overall, these results demonstrate that the manipulation of the three types of attribution regarding the cause for the negative treatment elicited the corresponding attributions. As intended, the results reflect that the negative feedback in the scenario is perceived to be illegitimate only following either an attribution to social discrimination or an external attribution.

### *Anger*

To test the impact of Attribution (attribution to social discrimination vs. external attribution vs. internal attribution) on both types of anger, separate multiple regression analyses were conducted with Identification and the Attribution x Identification interaction as additional predictors. Following Aiken and West (1991) the interaction terms were computed by a multiplication of the z-standardized identification score with two unweighted effect codes of the attribution variables (1st contrast: -1 attribution to social discrimination, 0 external attribution, and 1 internal attribution; 2nd contrast: 0 attribution to

social discrimination, -1 external attribution, and 1 internal attribution). A hierarchical regression was computed. The two contrasts and Social Identification were entered in the first step, the interaction terms in the second step. This procedure was chosen to compute a joint test for the two interaction terms (i.e. a  $R^2$  change test). All regression weights reported below stem from the final equation (see Table 1 and 7).

We predicted that self-directed anger would be higher in the internal than in the other two conditions. Furthermore, we expected that higher levels of social identification would lead to a decrease in self-directed anger in the attribution to social discrimination condition, but neither in the external nor in the internal attribution condition. The regression analysis with self-directed anger as criterion variable revealed a main effect of Attribution (1st contrast:  $\beta = .20$ ,  $p = .04$ ; 2nd contrast:  $\beta = .63$ ,  $p < .001$ ). As expected, a higher level of self-directed anger was found in the internal attribution condition ( $M = 7.47$ ,  $SD = 1.31$ ) compared to the two other conditions (attribution to social discrimination:  $M = 4.22$ ,  $SD = 2.27$ ; external attribution:  $M = 2.88$ ,  $SD = 1.56$ ) (see Figure 2). Furthermore, Identification did not influence self-directed anger,  $\beta = -.12$ ,  $p = .13$ .




---

self-directed anger	4.22 (2.27)	2.88 (1.56)	7.47 (1.31)
other-directed anger	7.09 (2.24)	7.11 (1.72)	1.99 (1.30)

---

*Figure 2: Mean self- and other-directed anger (standard deviations in brackets) as a function of type of attribution to negative feedback (Study 1).*

Most importantly, the expected Attribution x Identification interaction emerged,  $R^2$  change = .04,  $F(2, 61) = 3.22$ ,  $p = .05$ . As predicted, simple slope analyses (following Aiken & West, 1991) indicated that in the attribution to social discrimination condition higher identification led to a decrease in self-directed anger ( $\beta = -.40$ ,  $p = .01$ ), whereas in the external ( $\beta = -.04$ ,  $p = .75$ ) or in the internal attribution condition ( $\beta = .08$ ,  $p = .59$ ) identification did not have an impact on self-directed anger (see Figure 3).

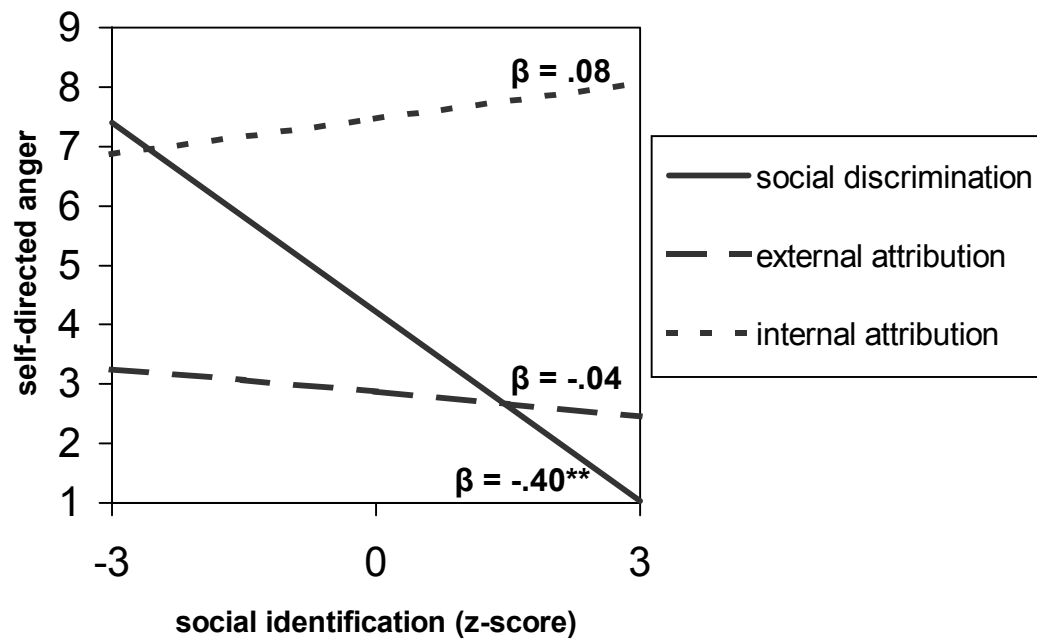


Figure 3: Self-directed anger as a function of group identification and type of attribution (Study 1).

The multiple regression with other-directed anger as criterion variable revealed the expected main effect of Attribution (1st contrast:  $\beta = -.46$ ,  $p < .001$ ; 2nd contrast:  $\beta = -.47$ ,  $p < .001$ ) such that other-directed anger was higher in the external ( $M = 7.11$ ,  $SD = 1.72$ ) and in the attribution to social discrimination condition ( $M = 7.09$ ,  $SD = 2.24$ ) than in the internal attribution condition ( $M = 1.99$ ,  $SD = 1.30$ ). Neither Identification ( $\beta = .04$ ,  $p = .611$ ) nor the Attribution x Identification interaction had an impact on other-directed anger,  $R^2$  change = .01,  $F(2,61) = .57$ ,  $p = .57$ .

*Table 1: Standardized regression weights ( $\beta$ ), unstandardized regression weights ( $B$ ), and standard errors ( $SE$ ) from multiple regressions of self-directed anger (SDA) and other-directed anger (ODA) on attribution and social identification in Study 1 ( $N = 67$ ).*

	SDA			ODA		
	$\beta$	$B$	$SE$	$\beta$	$B$	$SE$
Attribution1 contrast (social -1, external 0, internal 1)	.20*	.64	.29	-.46***	-1.70	.32
Attribution2 contrast (social 0, external -1, internal 1)	.63***	1.98	.29	-.47***	-1.72	.32
Identification	-.12	-.33	.21	.04	.12	.23
Attribution1 x Identification	.23*	.73	.30	.03	.13	.32
Attribution2 x Identification	-.06	-.21	.30	.06	.21	.32

Note: \*:  $p < .05$ , \*\*:  $p < .01$

### 2.5.3 Discussion

Both main effects of attribution on self-directed and other-directed anger reveal that (a) anger with oneself is experienced strongest in the internal attribution condition, and that (b) anger at someone else is expressed most in the attribution to social discrimination and the external attribution condition. As suggested in the Introduction, these results illustrate that the direction of anger aims at the perceived cause of negative feedback.

As expected, the type of attribution moderated the impact of social identification on self-directed anger. Only when receiving negative feedback due

to their group membership, but not due to an external or internal cause, individuals with stronger social identification showed lower levels of self-directed anger. Hence, social identification buffered the impact of social discrimination for individuals highly identified with their group. It is not the group membership per se that buffers the negative effects after social discrimination but the identification with the group. This can be concluded from the finding that individuals with low group identification show the same level of self-directed anger as individuals who believe they caused the negative feedback themselves (see Figure 1). These results are contradictory to McCoy's and Major's position (2003) but support the prediction of Branscombe and colleagues (1999) concerning depression.

This study had a minor limitation. The social identification should not differ as a function of condition, but female participants identified stronger in the internal compared to the external attribution condition. This result is likely to be influenced by the German wording of 'professor', implying that the professor was a man. Thus, this instruction may have made gender categorization salient and the participants might have used this salient category to restore their self-esteem (e.g., Gaertner, Sedikides, & Graetz, 1999). Therefore, social identification may have been higher in the internal attribution condition. Consequently, in Study 2 the group membership of the person in the scenario was not made salient in the external and internal attribution condition.

## 2.6 Study 2

In order to rule out the minor weakness of Study 1, another social category (social identification with the University of Jena) and domain (internships) were chosen for the scenario. Furthermore, Study 2 aimed to replicate the impact of the attribution of negative feedback on the direction of anger and the moderating role of the impact of social identification on self-directed anger.

### 2.6.1 Method

#### *Design and sample*

Replicating Study 1, Study 2 had three conditions (attribution to social discrimination vs. external attribution vs. internal attribution). Again social identification was assessed as independent and self- and other-directed anger as dependent variables. Undergraduates of the University of Jena (65 women, 29 men; age:  $M = 21$ , range: 18-29) were recruited on campus. Participants were compensated for their participation with a bar of chocolate.

#### *Procedure*

The procedure and materials were the same as in Study 1 except for two alterations. First, the salient group membership in the attribution to social discrimination condition was the affiliation with the University of Jena. During the time of the study there was an actual ongoing debate on introducing a group of so-called 'elite-universities' in Germany, a group of universities similar to the Ivy League Colleges in the United States. According to the debate, the University of Jena would not have been part of the elite group. In turn, this might reduce the status of the participants' university and might make getting internships and jobs harder in the future.



Secondly, the negative feedback in the Study 2 scenario was the rejection of an application for an internship. In all three conditions the participants had to read a scenario and then imagine being the student in the scenario applying for an internship. The described student participated in a telephone interview with a human resource manager of a company. After the interview the student received negative feedback (i.e. the human resource manager rejected them). This feedback was described in a way that made it obvious that it was a result either of their affiliation to the University of Jena (*attribution to social discrimination*), or of the unfair behavior of the human resource manager (*external attribution*), or of their own performance (*internal attribution*). In the attribution to social discrimination condition the participants read that the human resource manager was known to prefer students from famous universities and that two students from famous universities were offered an internship, whereas a friend of the University of Jena was rejected as well. In the external attribution condition the human resource manager was described to be arrogant and distracted. In the internal condition the student in the scenario was described as not having performed well in the interview. In this study the sex of the human resource manager was not mentioned and could not be concluded from the wording.

### *Measures*

*Anger.* The same anger scales as in Study 1 were administered. Both had a very good internal consistency (self-directed anger:  $\alpha = .95$ ; other-directed anger:  $\alpha = .93$ ) and did not correlate in the social discrimination ( $r = -.22$ ,  $N = 32$ ,  $p = .24$ ) and the external attribution condition ( $r = -.25$ ,  $N = 31$ ,  $p = .18$ ) but did correlate in the internal attribution condition ( $r = .47$ ,  $N = 31$ ,  $p = .01$ ).

*Social identification.* Identification was assessed by adapting the scale from Study 1 for social identification with the University of Jena revealing a high internal consistency ( $\alpha = .83$ ).

*Manipulation checks.* Participants rated the extent to which they would attribute the rejection concerning an internship in the scenario to different causes: their university affiliation (attribution to social discrimination), the human resource manager (attribution to social discrimination and external attribution), themselves (internal attribution). According to Study 1, illegitimacy was assessed with one item.

### 2.6.2 Results

#### *Social identification*

Social identification was above the midpoint of the scale in all three conditions (all  $t$ s  $> 4.02$ , all  $p$ s  $< .001$ ) and did not differ between conditions (attribution to social discrimination:  $M = 4.80$ ,  $SD = 1.06$ ; external attribution:  $M = 4.94$ ,  $SD = 1.16$ ; internal attribution:  $M = 4.89$ ,  $SD = 1.23$ ),  $F(2,91) = .13$ ,  $p = .881$ . Hence, the social category was meaningful and the alteration ruled out the weakness of Study 1.

#### *Manipulation checks*

As intended, participants attributed the negative feedback more to their university affiliation in the attribution to social discrimination condition than in the other two conditions (post-hoc: both  $p$ s  $< .001$ ; attribution to social discrimination:  $M = 5.60$ ,  $SD = 1.41$ ; external attribution:  $M = 1.65$ ,  $SD = 1.25$ ; internal attribution:  $M = 1.10$ ,  $SD = .31$ ),  $F(2,90) = 154.97$ ,  $p < .001$ . The means did not differ between the external and the internal attribution condition ( $p = .17$ ).

Moreover, the human resource manager was regarded as more responsible for the negative feedback in the external than in the attribution to social discrimination and the internal attribution condition (external attribution:  $M = 4.84$ ,  $SD = 1.77$ ; attribution to social discrimination:  $M = 2.90$ ,  $SD = 1.75$ ; internal attribution:  $M = 1.84$ ,  $SD = 1.16$ ; post-hoc-test: all  $ps < .03$ ),  $F(2,91) = 28.49$ ,  $p < .001$ . Finally, one was personally seen to be more responsible in the internal attribution condition compared to the two other conditions (post-hoc: both  $ps < .001$ ; internal attribution:  $M = 5.90$ ,  $SD = 1.27$ ; attribution to social discrimination:  $M = 2.38$ ,  $SD = 1.45$ ; external attribution:  $M = 3.00$ ,  $SD = 1.41$ ),  $F(2,91) = 57.89$ ,  $p < .001$ . The other comparison was not significant ( $p = .21$ ).

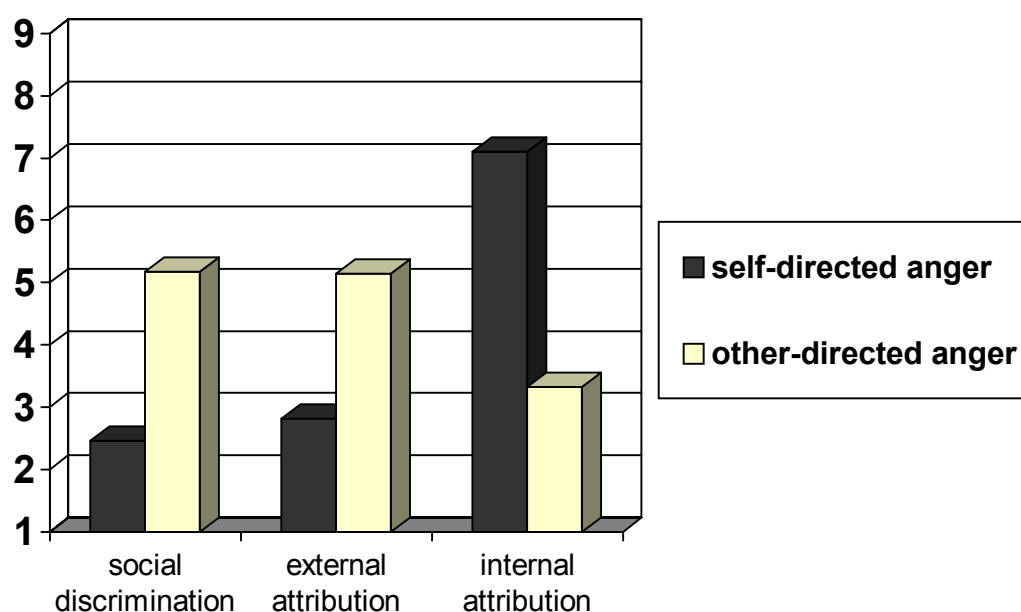
The perceived illegitimacy of the negative feedback differed in the intended way between the conditions (attribution to social discrimination:  $M = 5.72$ ,  $SD = 1.44$ ; external attribution:  $M = 5.16$ ,  $SD = 1.32$ ; internal attribution:  $M = 3.29$ ,  $SD = 1.66$ ,  $F(2,91) = 23.16$ ,  $p < .001$ ). The behavior of the human resource manager was perceived as more illegitimate in the attribution to social discrimination and in the external attribution condition than in the internal one (both  $ps < .001$ ), whereas the attribution to social discrimination and the external attribution condition did not differ ( $p = .33$ ). This pattern replicates the findings of Study 1 in showing that negative treatment is perceived to be illegitimate only when resulting from an attribution to social discrimination or an external attribution.

### *Anger*

In separate multiple regressions (see Table 2 and 7) self- and other-directed anger were regressed on the Attribution (attribution to social discrimination vs. external attribution vs. internal attribution), Social

Identification, and the Attribution x Identification interaction. The attribution variables were coded and the interaction terms computed as in Study 1.

We predicted self-directed anger to be higher in the internal attribution condition compared to the other two conditions. Furthermore, we expected that stronger social identification would result in less self-directed anger in the attribution to social discrimination condition, but that this should not be the case neither in the external nor in the internal attribution condition. As expected, the main effect of Attribution occurred (1st contrast:  $\beta = .52$ ,  $p < .001$ ; 2nd contrast:  $\beta = .40$ ,  $p < .001$ ) such that self-directed anger was larger in the internal attribution condition ( $M = 7.10$ ,  $SD = 1.62$ ) compared to the other conditions (attribution to social discrimination:  $M = 2.47$ ,  $SD = 1.84$ ; external attribution:  $M = 2.82$ ,  $SD = 1.51$ ) (see Figure 4). Social Identification did not have a main effect on self-directed anger,  $\beta = .01$ ,  $p = .88$ .




---

self-directed anger	2.47 (1.84)	2.82 (1.51)	7.10 (1.62)
other-directed anger	5.18 (1.47)	5.15 (1.36)	3.33 (1.87)

---

*Figure 4: Mean of self- and other-directed anger (standard deviations in brackets) as a function of type of attribution to negative feedback (Study 2).*

Consistent with my prediction, the analysis revealed a significant Attribution x Identification interaction [ $R^2$  change = .03,  $F(2,88) = 3.90$ ,  $p = .02$ ]. In line with my reasoning, simple slope analyses indicated that social identification was negatively related to self-directed anger in the attribution to social discrimination condition,  $\beta = -.25$ ,  $p = .04$ . This relation was neither found in the external attribution condition,  $\beta = .11$ ,  $p = .11$ , nor in the internal attribution condition,  $\beta = .16$ ,  $p = .11$  (see Figure 5).

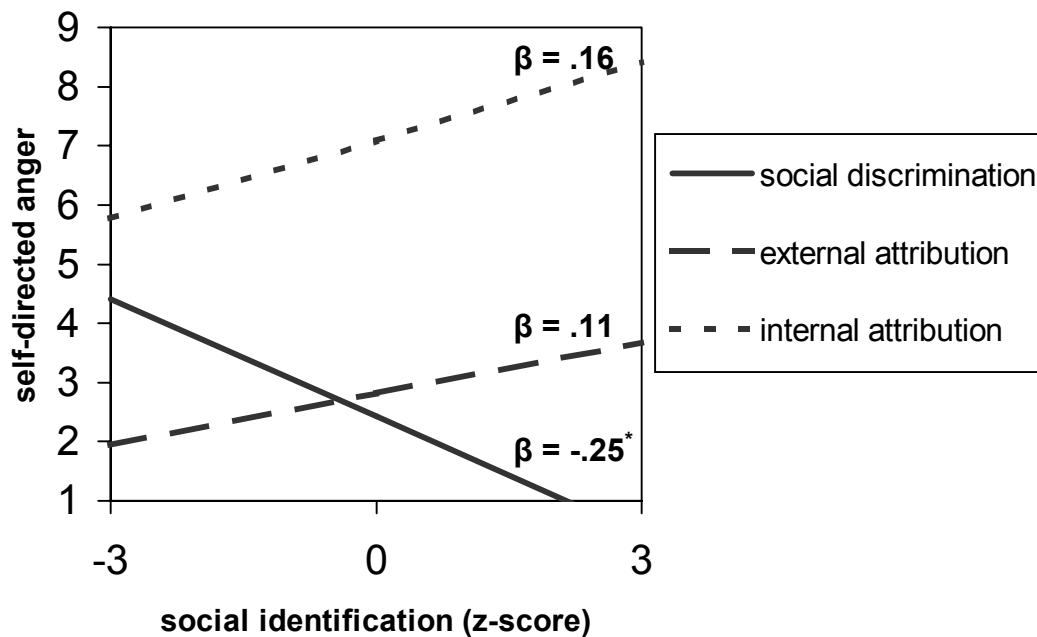


Figure 5: Self-directed anger as a function of group identification and type of attribution (Study 2).

The regression analysis on other-directed anger revealed, as expected, a main effect of Attribution (1st contrast:  $\beta = -.23$ ,  $p = .04$ ; 2nd contrast:  $\beta = -.23$ ,  $p = .03$ ). Higher levels of other-directed anger were found in the external attribution condition ( $M = 5.15$ ,  $SD = 1.36$ ) and in the attribution to social discrimination condition ( $M = 5.18$ ,  $SD = 1.47$ ) compared to the internal attribution condition ( $M = 3.33$ ,  $SD = 1.87$ ). Higher levels of social identification led to an increase in other-directed anger,  $\beta = .30$ ,  $p < .001$ . The Attribution  $\times$  Identification interaction was not significant,  $R^2$  change = .01,  $F(2,88) = .34$ ,  $p = .72$ .

*Table 2: Standardized regression weights ( $\beta$ ), unstandardized regression weights ( $B$ ), and standard errors ( $SE$ ) from multiple regressions of self-directed anger (SDA) and other-directed anger (ODA) on attribution and social identification in Study 2 ( $N = 94$ ).*

	SDA			ODA		
	$\beta$	$B$	$SE$	$\beta$	$B$	$SE$
Attribution1 contrast (social -1, external 0, internal 1)	.52***	1.69	.24	-.23*	-.64	.30
Attribution2 contrast (social 0, external -1, internal 1)	.40***	1.30	.24	-.23*	-.67	.31
Identification	.01	.03	.17	.30***	.71	.22
Attribution1 x Identification	.21**	.68	.25	.01	.02	.32
Attribution2 x Identification	-.08	-.27	.24	.07	.20	.31

Note: \*:  $p < .05$ , \*\*:  $p < .01$

### 2.6.3 Discussion

The results of this study replicated the findings of Study 1. Self-directed anger was larger when negative feedback was attributed internally than when it was attributed either to social discrimination or externally. Moreover, other-directed anger showed higher means in the attribution to social discrimination and in the external attribution condition than in the internal one. Furthermore, the study replicated the Attribution x Identification interaction: Stronger social identification led to less self-directed anger when negative feedback was attributed to social discrimination but not when it was attributed to the unfair

behavior of someone else or to personal performance. Together with the results of Study 1, these findings clearly support the hypothesis that higher social identification leads to a decrease in self-directed anger when attributing negative feedback to social discrimination.

Study 2 ruled out the weakness of Study 1 so that the social identification did not differ between conditions. The chosen scenario in this study did not initiate stereotypic behavior.

Apart from the expected effects, higher identification also led to an increase in other-directed anger. This effect was not found in Study 1 and thus seems to be specific for the current context. Concerning internships students are dependent on human resource managers. Thus, identification with the university and the student body might increase anger towards the human resource manager.

The first two studies were correlational and hence do not allow to draw any conclusions concerning causality. Furthermore, social identification was measured after the manipulation. To be able to draw causal conclusions, a third study aimed to replicate the Attribution x Identification interaction on self-directed anger using a cross-lagged design.



## 2.7 Study 3

In order to test whether larger self-directed anger leads to a decrease in social identification or whether higher social identification leads to a decrease in self-directed anger, a third study with a cross-lagged design was conducted. This study aimed at showing that social identification prior to experiencing discrimination reduces self-directed anger resulting from social discrimination – and not the other way around.

Three alterations were made in Study 3. First, the internal attribution condition was not included in Study 3 (it served only as a control condition in Study 1 and 2). Hence, the design was restricted to two conditions: attribution to social discrimination versus external attribution.

Second, social identification and self-directed anger were assessed at two measurement points, before and after the manipulation.

Third, social identification was measured in a more differentiating manner. Tajfel (1981) defined social identification as “that part of an individual’s self-concept which derives from his knowledge of his membership in a social group (or groups) together with the value and emotional significance attached to that group membership” (Tajfel, 1981, p. 255). According to Tajfel’s (1978) definition social identification with one’s group does not only include an affective component (the value and emotional significance attached to the membership) but also a cognitive component (the importance of the group to the self-definition). The identification measure in my studies was one scale comprising items assessing mainly the affective as well as the cognitive component of social identification.

However, research has shown that these components are distinct and predict different aspects of intergroup behavior (e.g., Ashmore, Deaux, & McLaughlin-Volpe, 2004; Tropp & Wright, 2001; Ellemers, Kortekaas, &

Ouwerkerk, 1999; Deaux, 1996). According to McCoy and Major (2003) it is the cognitive component of social identification – the extent to which the self subjectively overlaps with the group – that moderates the affective responses to perceiving social discrimination against oneself. Further evidence for a specific impact of the cognitive component of social identification stems from Sellers and Shelton (2003). They found that racial centrality - the extent to which being African American is central to the respondent's definition of themselves (i.e. the cognitive component of social identification) - is positively associated with the extent to which individuals indicate having experienced discrimination. At the same time, the meaning and affect associated with one's racial group seem to protect individuals from the impact of social discrimination on psychological distress. These results illustrate that different dimensions of racial identity seem to serve both as a risk factor for perceiving social discrimination and as a protective factor against the deleterious impact of social discrimination on psychological distress. Therefore, measures assessing the cognitive and affective component of social identification separately were included in Study 3.

### **2.7.1 Method**

#### *Design and sample*

A study with two conditions (attribution to social discrimination vs. external attribution) and social identification as a continuous independent variable was conducted. Following Study 1 and 2, self- and other-directed anger were assessed as dependent variables. Social identification and self-directed anger were assessed before and after the manipulation, other-directed anger only afterwards. Ninety-seven undergraduates of the University of Jena (Germany) participated in the study (62 women, 35 men; age:  $M = 23$ , range: 18-35). All participants received 5 Euro for compensation.

### *Procedure*

Participants were recruited for a series of unrelated experiments. After arriving at the lab, they first filled out a questionnaire with social identification and self-directed anger measures. Then the participants performed an unrelated lexical decision task that lasted approximately ten minutes. Afterwards they underwent the manipulation and received the questionnaire used in Study 2.

### *Measures*

*Anger.* The anger measures were comprised of the same scales used in Study 1 and 2: self-directed anger ( $\alpha$  t1 = .85;  $\alpha$  t2 = .87) and other-directed anger ( $\alpha$  t2 = .83). Other-directed anger could only be assessed at the second measurement point because at the beginning participants had not yet faced the source of negative feedback to which they could direct to their anger. Again self- and other-directed anger did not correlate (attribution to social discrimination:  $r = .15$ ,  $N = 48$ ,  $p = .31$ ; external attribution:  $r = -.11$ ,  $N = 49$ ,  $p = .46$ ).

*Social identification.* The cognitive component of social identification was assessed with the four-item Importance to Identity subscale of Luthanen and Crocker's (1992) Collective Self-Esteem Scale (7-point scale ranging from 1 for *does not apply* to 7 for *does apply at all*, e.g. "Being a student of the University of Jena is an important reflection of who I am.",  $\alpha$  t1 = .78;  $\alpha$  t2 = .79). A shortened version of the social identification scale used in the first two studies was administered as a measure of the affective component. One item assessing the cognitive component was removed ( $\alpha$  t1 = .80;  $\alpha$  t2 = .76).

*Manipulation checks.* Participants again rated the extent to which they would attribute the rejection concerning the internship to different causes as well as the perceived illegitimacy of rejection.

### 2.7.2 Results

#### *Social identification*

Both components of social identification neither differed between the two conditions nor between both measurement points (*cognitive identification* t1: attribution to social discrimination,  $M = 2.74$ ,  $SD = 1.17$ ; external attribution,  $M = 2.38$ ,  $SD = 1.19$ ; t2: attribution to social discrimination,  $M = 2.53$ ,  $SD = 1.14$ ; external attribution,  $M = 2.36$ ,  $SD = 1.20$ ; *affective identification* t1: attribution to social discrimination,  $M = 4.95$ ,  $SD = 1.07$ ; external attribution,  $M = 4.77$ ,  $SD = 1.12$ ; t2: attribution to social discrimination,  $M = 4.82$ ,  $SD = 1.05$ ; external attribution,  $M = 4.60$ ,  $SD = 1.11$ ), for both scales all  $F_s < 2.2$ , all  $p_s > .14$ . Comparisons to the midpoint of the scale showed that the affective component of social identification was well above the midpoint, both  $t_s > 3.76$ , both  $p_s < .001$ , indicating that the category was meaningful for the participants.

#### *Manipulation checks*

As intended, the negative feedback was attributed to one's group membership to a larger extent in the attribution to social discrimination condition than in the external attribution condition (attribution to social discrimination:  $M = 5.50$ ,  $SD = 1.64$ ; external attribution:  $M = 1.53$ ,  $SD = 1.08$ ),  $F(1,95) = 199.20$ ,  $p < .001$ . Furthermore, the negative feedback was attributed stronger to the human resource manager's behavior in the external attribution condition than in the attribution to social discrimination condition (external attribution:  $M = 5.02$ ,  $SD = 1.36$ ; attribution to social discrimination:  $M = 3.92$ ,

$SD = 2.20$ ),  $F(1,95) = 8.86$ ,  $p = .004$ . The attribution of the negative feedback to the self did not differ significantly between the conditions (attribution to social discrimination:  $M = 2.23$ ,  $SD = 1.63$ ; external attribution:  $M = 2.80$ ,  $SD = 1.50$ ),  $F(1,95) = 3.18$ ,  $p = .08$ .

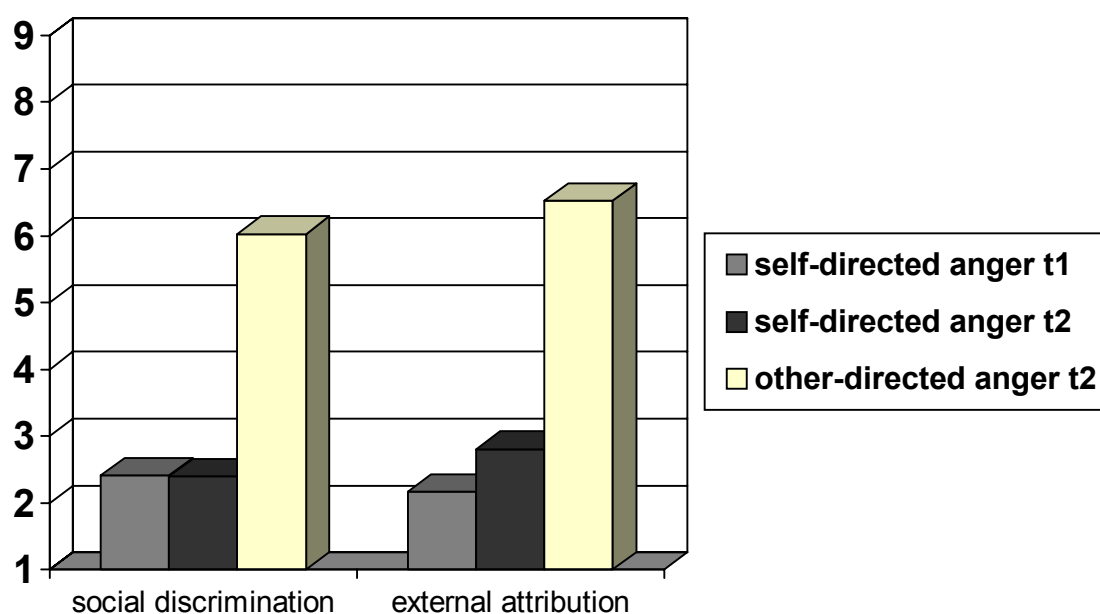
Participants also had to rate the illegitimacy of the negative feedback. In both conditions the mean was above the midpoint of the scale, indicating that the feedback was indeed perceived to be illegitimate (both  $t_s > 5.23$ , both  $p_s < .001$ ). The perceived illegitimacy was higher in the attribution to social discrimination condition ( $M = 6.38$ ,  $SD = .89$ ) than in the external attribution condition ( $M = 5.00$ ,  $SD = 1.34$ ),  $F(1,95) = 35.34$ ,  $p < .001$ . This effect was most likely caused by the public discussion about the introduction of a similar group of elite-universities to the Ivy League in the United States. At the time of Study 2 the discussion had just started and people were still suspicious and uncertain about this idea. At the time of Study 3 the discussion was on the media's agenda and people started to develop their own opinion against the introduction of a group of elite-universities. There was a vivid and emotional discussion in the universities. So far there have not been big status differences between the universities in Germany; this educational reform will change this. This reflects why the scenario for the social attribution in Study 3 was perceived to be more illegitimate.

Thus, the manipulation check concerning the attribution was in line with my intention and the negative feedback was perceived to be illegitimate.

### *Anger*

Self- and other-directed anger did not differ between the conditions at both measurement points (*self-directed anger* t1: attribution to social discrimination:  $M = 2.41$ ,  $SD = 1.63$ ; external attribution:  $M = 2.17$ ,  $SD = 1.51$ ;

self-directed anger t2: attribution to social discrimination:  $M = 2.40$ ,  $SD = 1.36$ ; external attribution:  $M = 2.81$ ,  $SD = 1.35$ ; *other-directed anger* t2: attribution to social discrimination:  $M = 6.03$ ,  $SD = 2.30$ ; external attribution:  $M = 6.52$ ,  $SD = 1.79$ ), all  $F_s < 2.40$ , all  $p_s > .10$  (see Figure 6).




---

self-directed anger t1	2.41 (1.63)	2.17 (1.51)
self-directed anger t2	2.40 (1.36)	2.81 (1.35)
other-directed anger t2	6.03 (2.30)	6.52 (1.79)

---

*Figure 6: Mean self- and other-directed anger (standard deviations in brackets) as a function of type of attribution to negative feedback (Study 3).*

In order to test the prediction that the type of attribution moderates the impact of the cognitive component of social identification at t1 on self-directed anger at t2, a multi-sample LISREL analysis (Jöreskog & Sörbom, 1996) was formed. By this means, it is possible to assess whether the parameters of a

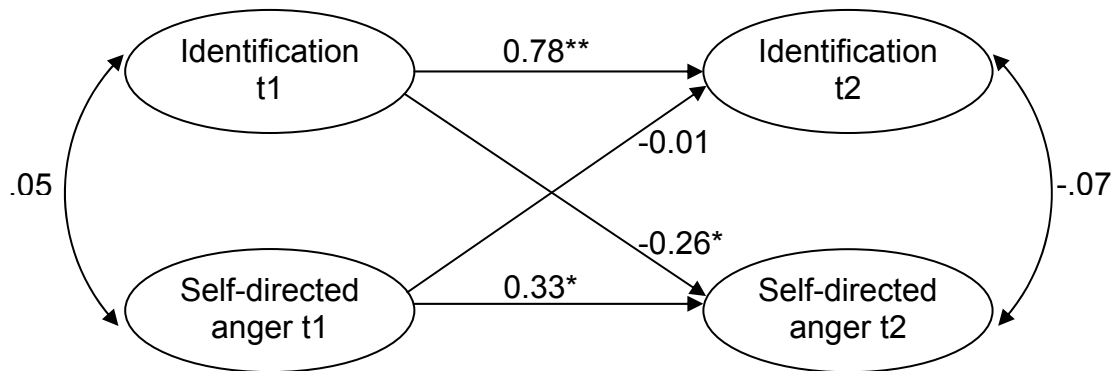
given path model are equivalent or different across different groups (i.e. in this study, the attribution to social discrimination condition versus the external attribution condition). In other words, using this method it is possible to test the prediction that social identification at t1 leads to less self-directed anger at t2 in the attribution to social discrimination but not in the external attribution condition.

For each condition a path model with four latent variables, self-directed anger and social identification at the two measurement points, was computed. The path models were separately tested for the cognitive and affective component of social identification because the corresponding scales were expected to assess different components of social identification (t1:  $r = .24$ ,  $p = .02$ ; t2:  $r = .16$ ,  $p = .13$ ). In a first test all paths except for the one between identification at t1 and self-directed anger at t2 and the covariance between identification at t2 and self-directed anger at t2 were equated across both conditions. This path and the covariance were allowed to differ between conditions because they represent the predicted Attribution x Identification interaction on self-directed anger. The model with the cognitive component of social identification had an almost perfect fit:  $\chi^2 (4, N = 97) = 1.88$ ,  $p < .21$ ; root mean square error of approximation (RMSEA) = 0.001; Goodness of Fit (GFI), Non-normed Fit Index (NNFI), Normed Fit Index (NFI), Comparative Fit Index (CFI) > .95. The model (see Figure 7) showed that higher identification at t1 resulted in higher identification at t2 ( $\beta = .78$ ,  $p < .001$ ). Furthermore, identification and self-directed anger at t1 did not covary ( $\psi = .05$ ,  $p = \text{n.s.}$ ). Self-directed anger at t1 lead to higher self-directed anger at t2 ( $\beta = .33$ ,  $p = .05$ ). Most importantly, higher identification at t1 lead to a decrease in self-directed anger at t2 in the attribution to social discrimination condition ( $\beta = -.26$ ,  $p < .05$ ) but not in the external attribution condition ( $\beta = .21$ ,  $p = \text{n.s.}$ ). This effect is in line with the prediction that social identification prior to receiving negative feedback will decrease self-directed anger after receiving negative feedback that is attributed to social discrimination and not externally. Self-directed anger

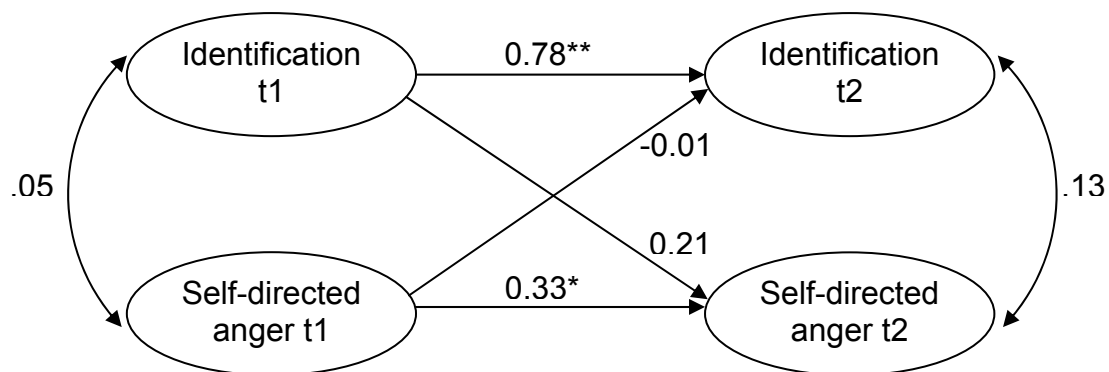
at t1 has no impact on social identification at t2 ( $\beta = -.01$ ,  $ps = n.s.$ ).

Furthermore, social identification at t2 and self-directed anger at t2 did not covary to a significant extent in each condition but differed on a descriptive level in the expected direction (attribution to social discrimination:  $\psi = -.07$ ,  $p = n.s.$ ; external attribution:  $\psi = .13$ ,  $p = n.s.$ ).

Attribution to social discrimination



External attribution



Note:  $\chi^2 = 1.88$ ,  $df = 4$ ,  $p < .21$ , RMSEA = 0.001 for multiple group comparison in which all paths were set equal between groups except for the relation between social identification t1 and self-directed anger t2 as well as identification t2 and self-directed anger t2.

Figure 7: Structural equation model assessing both the direct and indirect effects of social and external attribution to negative feedback on social identification and self-directed anger.



In a second test the model with the cognitive component of social identification had the same restrictions as the first model. In addition, the path between social identification at t1 and self-directed anger at t2 was set equal between conditions. The resulting model had an unacceptable fit:  $\chi^2 (5, N = 97) = 5.31, p < .02$ ; RMSEA = 0.14; GFI = .95, NNFI = .82, NFI = .88, CFI = .93. A chi square difference test between the tested models revealed a significantly worse fit of the second model,  $\Delta \chi^2 (1, N = 97) = 3.43, p < .05$ .

The same analysis was computed for the affective component of social identification. In the test all paths except for the path between identification at t1 and self-directed anger at t2 and the covariance between identification at t2 and self-directed anger at t2 were equated across both conditions. The resulting model had a poor fit:  $\chi^2 (4, N = 97) = 3.58, p < .02$ ; RMSEA = 0.16; GFI = .96, NNFI = .76, NFI = .88, CFI = .92. The affective component of social identification at t1 had no impact on self-directed anger at t2, neither in the attribution to social discrimination ( $\beta = -.01, p = \text{n.s.}$ ) nor in the external attribution condition ( $\beta = .07, p = \text{n.s.}$ ). Testing a saturated model did not result in significant paths for the predicted relation, either.

### 2.7.3 Discussion

These results replicate the findings of the first two studies and provide an insight in the causal relation of social identification and self-directed anger. The results support the prediction that higher identification results in less self-directed anger in the attribution to social discrimination but not in the external attribution condition. When experiencing social discrimination, social identification only serves as a buffer for individuals highly identified with their group. However, self-directed anger does not have an impact on social identification.

It is the cognitive component of social identification - the importance of the group to the self-definition - that drives the found effect. The Attribution x Identification interaction was only found for the purely cognitive component of social identification and not for the purely affective component. This result seems to support McCoy and Major's (2003) assumption that it is the overlap of the group with the self, or the centrality of the group for the self, that triggers the buffering effect of strong social identification. Furthermore, it also seems to give partial credit to Sellers and Shelton's (2003) prediction that different dimensions of racial identity have a different impact on perceiving and responding to social discrimination. However, in their study the cognitive component of social identification did not impact on psychological distress. This might be due to the different types of variables (measures of racial centrality and psychological distress) they assessed.

In all three studies the attribution to negative feedback was manipulated with different vignettes the participants had to read and imagine being in the position of the described person in the scenario. Study 4 aims to test whether the results also hold under the personal experience of negative feedback.

## 2.8 Study 4

In order to extend my findings from the three scenario studies to situations people experience in their daily lives I conducted Study 4. Female participants had to recall a situation in which they received negative feedback due to either their gender, or another person's inadequate behavior, or their own fault.

### 2.8.1 Method

#### *Design and sample*

A study with three conditions (attribution to social discrimination vs. external attribution vs. internal attribution) and social identification as independent variable was conducted. Self- and other-directed anger were assessed as dependent variables after the manipulation. One-hundred and three female undergraduates of the University of Jena (Germany) participated in the study (age:  $M = 22$ , range: 18-30). All participants were compensated with two Euro.

#### *Procedure*

Female students were recruited for a study on personal experiences in receiving negative feedback. While recruiting participants no reference to their gender was made in order to make sure that the category did not become salient. They were asked to recall a situation in which they recently had experienced negative feedback. Depending on the experimental condition, participants had to describe a situation in which they had received negative feedback due to their gender (attribution to social discrimination), the unfair behavior of someone else (external attribution), or their own behavior (internal attribution). To make their personal experience more salient, participants had to

describe this situation on half a page and express how negative and illegitimate this feedback had been.

After they had written down their experience, the participants had to fill out the questionnaire with the same measures as in Study 1-3. They were asked to indicate how they felt in the described situation. Finally, they were thoroughly debriefed and thanked.

### *Measures*

*Anger.* The same anger scales were administered and both showed a very good internal consistency (self-directed anger:  $\alpha = .91$ ; other-directed anger:  $\alpha = .89$ ). Both anger scales did not correlate in any of the three conditions (attribution to social discrimination:  $r = .04$ ,  $N = 34$ ,  $p = .82$ ; external attribution:  $r = .11$ ,  $N = 37$ ,  $p = .51$ ; internal attribution:  $r = -.16$ ,  $N = 33$ ,  $p = .37$ ).

*Social identification.* The cognitive component of gender identification was measured as in Study 3 and revealed an acceptable internal consistency ( $\alpha = .66$ ).

*Manipulation checks.* Participants rated the extent to which they attributed the experienced negative feedback to different causes, and indicated the illegitimacy of the experienced feedback.

## **2.8.2 Results**

### *Social identification*

Social identification did not differ as a function of condition (attribution to social discrimination:  $M = 3.48$ ,  $SD = 1.17$ ; external attribution:  $M = 4.07$ ,  $SD = 1.21$ ; internal attribution:  $M = 4.00$ ,  $SD = 1.26$ ),  $F(2,99) = 2.39$ ,  $p = .10$ .

*Manipulation checks*

Participants attributed the negative feedback stronger to their gender in the attribution to social discrimination condition than in the other two conditions (post-hoc: both  $ps < .001$ ; attribution to social discrimination:  $M = 5.94$ ,  $SD = 1.28$ ; external attribution:  $M = 1.62$ ,  $SD = 1.32$ ; internal attribution:  $M = 1.39$ ,  $SD = 1.32$ ),  $F(2,101) = 131.59$ ,  $p < .001$ . Moreover, the person who gave the negative feedback was ascribed more responsibility in the attribution to social discrimination and the external attribution than in the internal attribution condition (post-hoc: both  $ps < .001$ ; attribution to social discrimination:  $M = 5.38$ ,  $SD = 1.74$ ; external attribution:  $M = 5.81$ ,  $SD = 1.15$ ; internal attribution:  $M = 3.58$ ,  $SD = 1.68$ ),  $F(2,101) = 20.41$ ,  $p < .001$ . Furthermore, one's own behavior was held more responsible for the negative feedback in the internal attribution condition compared to the other two conditions (post-hoc: both  $ps < .001$ ; internal attribution:  $M = 5.13$ ,  $SD = 1.66$ ; attribution to social discrimination:  $M = 2.59$ ,  $SD = 1.73$ ; external attribution:  $M = 2.92$ ,  $SD = 1.83$ ),  $F(2,100) = 62.63$ ,  $p < .001$  (all other post-hoc tests  $p > .50$ ).

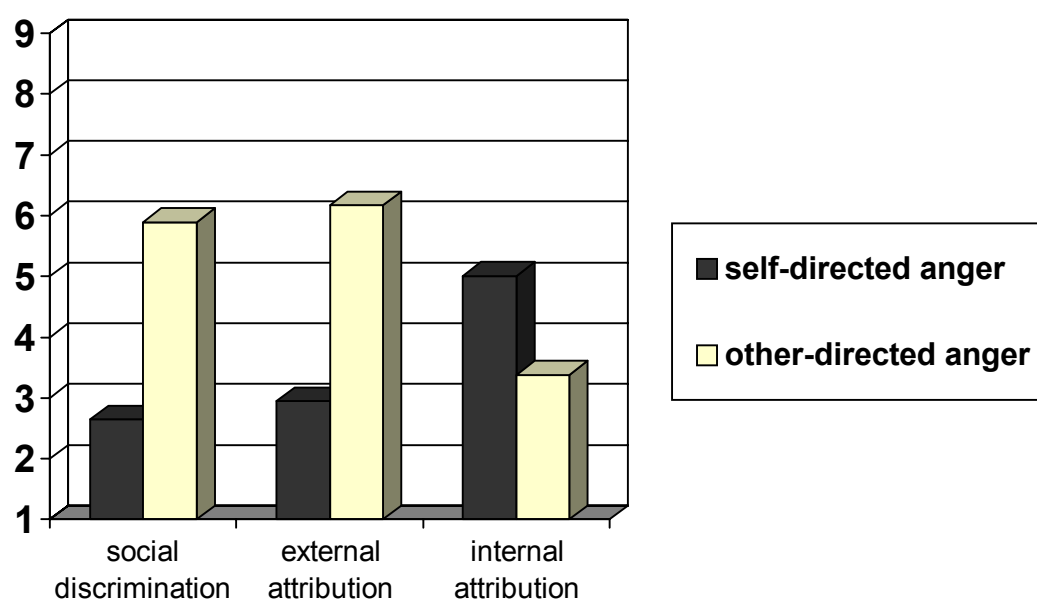
As intended, the perceived illegitimacy of the negative feedback did not differ between the attribution to social discrimination ( $M = 6.21$ ,  $SD = 1.25$ ) and the external attribution condition ( $M = 6.11$ ,  $SD = 1.15$ ; post-hoc:  $p = .96$ ), but between these two conditions and the internal attribution condition ( $M = 3.64$ ,  $SD = 1.80$ ; post-hoc: both  $ps < .001$ ),  $F(2,101) = 35.63$ ,  $p < .001$ .

Altogether, these results demonstrate that the new manipulation of the three different types of attribution elicited the intended attributions and perceptions of illegitimacy.

### *Anger*

As in Study 1 and 2, self- and other-directed anger were regressed in separate multiple regressions (see Table 3 and 7) on Attribution (attribution to social discrimination vs. external attribution vs. internal attribution), Social Identification, and the Attribution x Identification interaction.

Self-directed anger was predicted to be larger in the internal attribution condition than in the both other conditions. Moreover, I expected that stronger social identification would result in less self-directed anger in the attribution to social discrimination condition, but not in the external nor in the internal attribution condition. In line with these hypotheses, the main effect of Attribution emerged (1st contrast:  $\beta = .35$ ,  $p < .001$ ; 2nd contrast:  $\beta = .17$ ,  $p = .09$ ), such that self-directed anger was larger in the internal attribution condition ( $M = 5.01$ ,  $SD = 2.60$ ) compared to the other conditions (attribution to social discrimination:  $M = 2.65$ ,  $SD = 1.73$ ; external attribution:  $M = 2.95$ ,  $SD = 2.05$ ) (see Figure 8). Social Identification did not impact on self-directed anger,  $\beta = -.03$ ,  $p = .72$ .




---

self-directed anger	2.65 (1.73)	2.95 (2.05)	5.01 (2.60)
other-directed anger	5.89 (1.65)	6.17 (1.98)	3.38 (1.95)

---

*Figure 8: Mean self- and other-directed anger (standard deviations in brackets) as a function of type of attribution to negative feedback (Study 4).*

Supporting my prediction, the analyses revealed a significant Attribution x Identification interaction [ $R^2$  change = .07,  $F(2,96) = 4.23$ ,  $p = .02$ ]. As expected, simple slope analyses indicated that social identification was negatively related to self-directed anger in the attribution to social discrimination condition,  $\beta = -.33$ ,  $p = .04$ . This relation was not found in the external attribution condition,  $\beta = -.08$ ,  $p = .61$ . Surprisingly, there was a trend towards a positive relation between social identification and self-directed anger in the internal attribution condition,  $\beta = .31$ ,  $p = .052$  (see Figure 9).

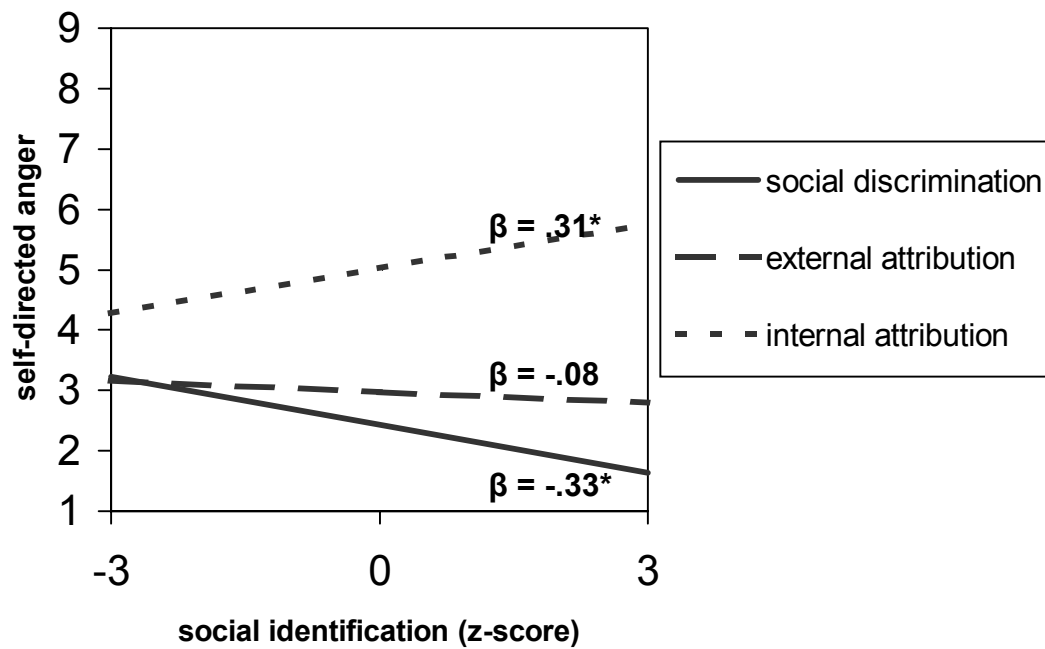


Figure 9: Self-directed anger as a function of group identification and type of attribution (Study 4).

In line with my expectations, the regression analyses on other-directed anger revealed a main effect of Attribution (1st contrast:  $\beta = -.24$ ,  $p = .02$ ; 2nd contrast:  $\beta = -.39$ ,  $p < .001$ ). Stronger other-directed anger was found in the external attribution condition ( $M = 6.17$ ,  $SD = 1.98$ ) and the attribution to social discrimination condition ( $M = 5.89$ ,  $SD = 1.65$ ) than in the internal attribution condition ( $M = 3.38$ ,  $SD = 1.95$ ). The Attribution x Identification interaction was not significant,  $R^2$  change = .001,  $F(2,96) = .10$ ,  $p = .90$ .



*Table 3: Standardized regression weights ( $\beta$ ), unstandardized regression weights ( $B$ ), and standard errors ( $SE$ ) from multiple regressions of self-directed anger (SDA) and other-directed anger (ODA) on attribution and social identification in Study 4 ( $N = 103$ ).*

	SDA			ODA		
	$\beta$	$B$	$SE$	$\beta$	$B$	$SE$
Attribution1 contrast (social -1, external 0, internal 1)	.35***	1.05	.31	-.24*	-.66	.28
Attribution2 contrast (social 0, external -1, internal 1)	.17	.49	.29	-.39***	-1.04	.27
Identification	-.03	-.08	.21	-.05	-.11	.20
Attribution1 x Identification	.24*	.72	.31	.05	.13	.28
Attribution2 x Identification	.04	.10	.30	-.03	-.07	.27

Note: \*:  $p < .05$ , \*\*:  $p < .01$

### 2.8.3 Discussion

The results of this study replicated the findings of the other scenario studies and extend them to personal, real life experiences. They show that social identification does not only protect individuals who have to imagine being an ingroup member experiencing social discrimination, but also individuals remembering a situation in which they were targets of social discrimination. Together with the results of Study 1-3, these findings clearly support the hypothesis that higher social identification leads to a decrease in self-directed anger when attributing negative feedback to social discrimination.

Apart from the expected effects, higher identification was positively related to self-directed anger when attributing negative feedback to one's own behavior. This effect did not occur in the other studies and might be caused by the current paradigm. The female participants had to recall an experience of receiving negative feedback due to personal responsibility. It is likely that such situations are recalled more frequently in which the own gender legitimizes the negative feedback than situations in which personal responsibility is seen as the cause of the negative feedback because the former are more protective for one's (personal) self-esteem. Results of another study indicate that high levels of social identification lead to an increase in self-directed anger when social discrimination is perceived to be more legitimate (see Study 5).

## **2.9 Summary and discussion of Studies 1–4**

Studies 1-4 aimed at investigating the impact of social identification on affective responses to social discrimination by differentiating first between self- and other-directed anger, and second between an attribution to social discrimination and an attribution to external causes. The first aim of the present research was to show that the causal loci of attributions have differing impacts on the direction of anger. Negative treatment attributed to social discrimination and externally results in higher levels of other-directed anger compared to negative treatment attributed internally. Conversely, negative treatment attributed internally results in higher levels of self-directed anger compared to treatment attributed to social discrimination or externally. As to the second aim of this thesis, this series of studies demonstrated that the attribution of negative feedback moderates the impact of social identification on self-directed anger. In Studies 1, 2, and 4, an Attribution x Identification interaction revealed that stronger identification resulted in less self-directed anger after an attribution to social discrimination but not after an external or an internal attribution. This

effect was replicated in a cross-lagged design in Study 3, showing that the attribution was moderating the impact of identification (t1) on self-directed anger (t2) and not the other way around. Social identification led to less self-directed anger after an attribution to social discrimination, but not after an external attribution. The results were found both in scenario studies (Study 1-3) and in a study using the recollection of personal negative experiences (Study 4). The results of the first four studies yield strong support for the hypothesis that strong social identification protects the self when attributing a negative treatment to social discrimination. This effect was found when the negative treatment was perceived to be unfair.

The results of the first four studies support my argument that is in line with Schmitt and Branscombe's perspective (2002b; Branscombe et al., 1999), but they also give credit to McCoy and Major (2003). They support Schmitt and Branscombe's prediction of self-protection for individuals highly identified with their group. According to Schmitt and Branscombe (2002a) it is the 'group in the self' that drives this effect. However, the negative effects of social discrimination are buffered only for highly identified individuals. This self-protective effect does not only buffer depressive mood, as has been shown in earlier research, but also anger toward the self. According to Crocker and Major's (1989) argument, social discrimination does not inevitably have negative consequences for the self. This seems to be true, but only for highly identified individuals who are hence protected. The results were obtained with two different groups (women and University of Jena students).

It could be argued that the effects observed here are limited to situations where one person only – and not the whole outgroup – is giving negative feedback to an individual due to that individual's group membership. The latter case would be, according to McCoy and Mayor (2003), more global and thus more pervasive. Another item on attribution to the whole group was included in Study 3 in order to investigate the impact of perceived social discrimination by a

single person versus social discrimination the whole outgroup. The Attribution x Attribution-item interaction on self-directed anger was far from significant,  $\beta = -.04$ ,  $p = .65$ , indicating that there is no moderating impact of whether the social discrimination is shown by a single person or by the whole outgroup. It seems, therefore, that it is not important whether social discrimination is shown by a single person or by the whole outgroup. Nevertheless, when facing social discrimination in our society, it is likely that the perpetrator operates alone rather than in the presence of other ingroup peers.

The buffering impact of social identification was observed when the negative treatment was perceived to be illegitimate and the reason for that the target received this treatment was partly based in the perpetrator – the perpetrator's prejudice. The question now arises as to how a target of social discrimination responds when facing an incidence of social discrimination which she/he perceives to be legitimate. In the following chapter this idea will be outlined further and hypotheses will be formulated and tested.

### 3 THE MODERATING EFFECT OF PERCEIVED LEGITIMACY

In the previous chapter it was examined how an attribution to a negative treatment and social identification impact on self- and other-directed anger. In this case, a negative treatment that is perceived to be illegitimate and can be attributed to own group membership is called an incidence of social discrimination (i.e. Major et al., 2002). It is also possible that a negative group-based treatment is perceived to be legitimate by the target (see p. 17). Therefore, this chapter will address the third aim of this thesis to study the impact of perceived legitimacy when experiencing a negative group-based treatment. Here the following will be discussed (a) where a negative group-based treatment is perceived to be legitimate, (b) how this impacts on self- and other-directed anger, and (c) how in this case social identification influences self-directed anger. First, the concept of social discrimination will be discussed more precisely and further conclusions regarding the impact of perceived legitimacy of a negative group-based treatment on self- and other-directed anger will be drawn.

#### 3.1 The concept of social discrimination

According to Major and colleagues (2002), a negative treatment is called social discrimination if it fulfils two criteria: (a) the negative treatment needs to be perceived as illegitimate by the target and (b) it is due to the target's group membership. This definition includes only perceived illegitimate social discrimination.

Similarly, Mummendey and Otten (2004) distinguish between *differentiation* and *discrimination*. The former describes differentiation as a need of individuals to differentiate between individuals based in their group

membership, because individuals look for a basis for orientations and decisions in their everyday lives (see also Self-Categorization Theory; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Mummendey and Otten (2004, p. 312) further argue: “*Discrimination* between people is a *problem* because it is an inappropriate and unjustified differentiation between people because of their group membership. It is judgment and interpretation and not clear-cut ‘objective’ characteristics of the intergroup treatment itself which define instances of social discrimination.” Mummendey and Otten (2004) further elaborate on this definition and argue that differentiation changes into discrimination when two parties disagree about the legitimacy of a respective distribution and of the underlying categorization. According to them, dissent is a result of the perspective-specific evaluations of the group’s entitlement to specific shares of these resources. This is derived from the categorization which provided the basis of judging the above mentioned entitlement. More precisely, they assert that this dissent may exist between the perpetrators and targets or even between these two and other external observers. With this concept of social discrimination, Mummendey and Otten (2004) stress the role of social interaction between the perpetrator, the target, and other observers, as well as the resulting psychological processes. This definition also includes the two criteria of illegitimacy and group membership that define social discrimination as argued by Major and colleagues (2002). It further distinguishes between an incidence of social discrimination and of differentiation.

Hence, cases of differentiation differ psychologically from cases of social discrimination in respect of the perceived legitimacy of this negative group-based treatment. Incidences of differentiation are regarded as legitimate, whereas incidences of social discrimination are seen as illegitimate. The following section will summarize the research that has looked at the affective responses to differentiation from the target’s perspective.

### 3.2 Legitimizing ideologies and beliefs

As mentioned earlier (see Chapter 1, p. 9), differentiation is still widespread in our society such as that minorities remain in part excluded from equal employment opportunities (e.g., in the United States see Braddock & McPartland, 1987; in Germany see Keck, 2004). Subsequently, different constructs are outlined that lead to a legitimate perception of an incidence of differentiation from the target's perspective. Furthermore this impact on affective responses to this negative group-based treatment is discussed.

Research on legitimizing ideologies in the field of social stigma has addressed this topic. Legitimizing ideologies are consensually shared attitudes, beliefs, and values that justify hierarchical and unequal relationships among groups in society (Sidanius & Pratto, 1993). More precisely, social dominance theory assumes that group-based inequalities must be legitimized in order to minimize intergroup conflict (Pratto, Sidanius, Stallworth, & Malle, 1994). Pratto, Sidanius and their colleagues (Pratto et al., 1994, p. 747) argue that "societies minimize intergroup conflict by creating consensus on ideologies that promote the superiority of one group versus another. Ideologies that promote or maintain group inequality are the tools that legitimate discrimination. To work smoothly, these ideologies must be widely accepted within a society, appearing as self-apparent truths (myths); hence we call them '*hierarchy-legitimizing myths*'." According to social dominance theory, individuals differ in the extent to which they endorse group-based hierarchies and status differences. Those who are high in social dominance orientation are likely to endorse a legitimizing ideology to maintain or even to enhance these hierarchies. These individuals will further support social policies and political positions in the field of intergroup relations in general that are against improving the position of disadvantaged groups. Some scholars have long argued that one possibility of how members of high-status groups maintain the social hierarchical order is by encouraging

lower status groups to endorse the legitimizing ideologies that foster this “false consciousness” (e.g., Jost, 1995; Jost & Major, 2001; Sidanius & Pratto, 1999).

Legitimizing ideologies lead to the perception that an experienced negative group-based treatment is seen as legitimate by the target. By ascribing the causality of, for example, the individual's group status within the individual, legitimizing ideologies encourage the perception that this status is deserved. They lead the disadvantaged to blame themselves rather than others for their situation (Jost & Major, 2001). According to Mummendey and Otten (2004), endorsing a legitimizing ideology will lead to negative group-based treatments being perceived as a legitimate incidence of differentiation. In contrast, the disadvantaged who do not endorse a legitimizing ideology will, for example, not accept an unequal status and thus, not blame themselves but others for their situation. Therefore, this will lead to the negative group-based treatment being attributed to social discrimination. Specific examples for a legitimizing ideology from the perspective of the target are the *belief of personal control* (Crandall, 1994; Crocker et al., 1993), the *belief in a just world* (Lerner, 1980; Lerner & Miller, 1978), and the *legitimizing myth of stereotypes of social groups* (Crocker et al., 1998; Jost & Banaji, 1994; Jost & Hunyady, 2002). Following, these three legitimizing ideologies which are relevant in this context are briefly explained from the target's perspective, before drawing conclusion on the difference between attributing a negative group-based treatment to differentiation versus social discrimination on anger.

#### *The belief of personal control*

The belief that people have control over their outcomes implies that they are responsible for them (Weiner, 1995). Some stigmatizing attributes, such as obesity, are judged to be more controllable and changeable than other stigmatizing attributes, such as gender. Individuals who have a controllable



stigma are judged as more responsible and blameworthy than those who possess a less controllable stigma (Weiner, 1995; Weiner et al., 1988; see also Chapter 1, p. 15). The belief in personal control has implications for how the stigma affects social interactions (Jones et al., 1984). Crocker and Major (1994) assume that the stigmatized sometimes believe that a negative treatment they received based on their stigma is illegitimate, and sometimes they believe that a negative treatment is legitimate. Crocker and colleagues (1993) studied the attribution style of overweight women. They found that compared to standard-weight women, overweight women were significantly more likely to attribute interpersonal rejection by a male partner to their weight, but were not more likely to attribute rejection to their partner's personality or his concern with appearance. Crocker and Major (1994) argued that because weight is seen as controllable, overweight women perceived their rejection due to their weight as justified differential treatment rather than social discrimination.

To conclude, if an individual has control over the own stigma, negative treatments are perceived to be legitimate. In the case of overweight women, the attribute 'overweight' as a result of the controllability is more an attribute related to the personal self than to the own group membership. More precisely, an overweight woman is rejected by a male partner due to her overweight and thus she attributes the rejection more to her weight than to the male's concern with appearance. She has personal control over her weight and could start dieting, and thus lose the stigma. It is not her group membership that leads the partner to reject her.

To conclude, the study of discrimination of overweight people is a study of personal negative treatment and not of negative treatment due to an individual's group membership. Hence, the belief of personal control is not relevant for the context of this thesis where the affective response to a negative group-based treatment is under review.

*The belief in a just world*

The underlying assumption of an individual who endorses a belief in a just world is that everything that happens is just and fair. This legitimizing belief can lead targets of social discrimination to except inequality and blame themselves, rather than others, for their experience of social discrimination (Lerner, 1980; Lerner & Miller, 1978). Three different lines of research suggest that believing one deserves one's fate is sometimes preferable to concluding that one is a target of social discrimination. First, research has shown that women who are underpaid relative to men often believe that they deserve their lower salary and do not perceive that they personally are discriminated against (e.g., Major, 1987, 1989; Crosby, 1982; 1984; for a review see Taylor et al., 1994). The second line of research examines people who have randomly and unpredictably become victims and blame themselves for the experience. For example, rape victims often blame themselves for the rape (e.g., Janoff-Bulman, 1979). The third line of research gives more indirect evidence that victims of injustice are sometimes motivated to believe that their outcomes are fair (Hafer & Olson, 1989). Participants performed a computer task to win points toward a goal that had desirable consequences. All participants received bogus feedback telling them that they had not won any points. The results demonstrated that the stronger participants endorsed a belief in a just world, the stronger they perceived their own failure to win points to be fair.

In sum, individuals differ in the extent to which they endorse beliefs that bias them to perceive the world as just or unjust, and that their outcomes are deserved or undeserved (e.g., Katz & Hass, 1988). Thus, targets who endorse a belief in a just world will perceive a negative group-based treatment as legitimate differentiation. In contrast, targets who do not endorse this belief will perceive a negative group-based treatment as illegitimate social discrimination. To conclude, to date this line of research has not distinguished between perceived legitimate differentiation versus perceived illegitimate social

discrimination. Thus, this line of research studies the impact of perceived legitimacy of a negative group-based treatment, and of social identification on anger.

### *The legitimizing myth of social stereotypes*

Another type of legitimizing myth are stereotypes about social groups (e.g., Crocker et al., 1998; Jost & Banaji, 1994; Jost & Hunyady, 2002). Stereotypes can help to maintain the inequalities between groups. Both positive and negative stereotypes can have this impact. Stereotypes do not only lead perpetrators to stigmatize other individuals due to their group membership (see also Chapter 1, pp. 14), but also influence the members of the stigmatized, stereotyped group.

From the target's perspective, positive and negative stereotypes, which the target to some extent agrees on with the perpetrators, are likely to shape the target's perception of inequalities. For example, a positive stereotype of men being hard-working and ambitious may be as important in attaining and maintaining their leadership position at work as the negative stereotype that men are not really socially competent and empathetic. These positive as well as negative stereotypes may even be hard for the targets to resist.

To sum up, individuals belonging to a group that is devalued due to an attribute of the group are stigmatized (Crocker et al., 1998; see also Chapter 1, pp. 14). Research has shown that these individuals tend to internalize the stereotype that is attributed to them (e.g., see stereotype threat, Steele, 1997). Thus, this internalization of stereotypes that others hold about oneself due to the own social stigma may lead to the belief that a negative group-based treatment is legitimate. More precisely, targets who internalize a stereotype of their group that fosters inequality will perceive a negative group-based

treatment as legitimate differentiation, whereas targets who do not internalize the stereotype will regard a negative group-based treatment as illegitimate social discrimination.

### *Conclusions*

In conclusion, the summarized research has studied the impact of the *belief of personal control* (Crandall, 1994; Crocker, Cornwell, & Major, 1993), the *belief in a just world* (Lerner, 1980; Lerner & Miller, 1978), and the *legitimizing myth of stereotypes of social groups* (Crocker et al., 1998; Jost & Banaji, 1994; Jost & Hunyady, 2002) on the target's perceived legitimacy of a negative group-based treatment. First, research on the belief in personal control has studied the impact of a negative treatment on a personal level, and thus does not fit the aim of this thesis, which is to study the impact of a negative group-based treatment and of social identification on anger. Second, the belief in a just world has been studied as interindividual difference in this context, and is thus an important moderator in this field. Third, stereotypes play an important role in the research on the target's response to a negative group-based treatment. Social stereotypes can legitimize a negative group-based treatment if the target has internalized the stereotype of the own group. In order to study differentiation as proposed by Mummendey and Otten (2004), the following criteria have to be fulfilled: the negative treatment (a) must be based on the target's group membership and (b) needs to be perceived as legitimate by the target on the basis of the social stereotype of the own group. Research in the field of social discrimination and social identification has not yet investigated the impact of legitimizing ideologies on affective responses by focusing on legitimate perceived differentiation.

So far the present research (Studies 1-4) only studied acts of social discrimination that were perceived as illegitimate by the target. On an

operational level three conditions were compared with each other in this thesis (see Table 4). An external attribution condition was included in which the negative treatment was manipulated to be (a) illegitimate and (b) not related to the own group membership (personal identity). Furthermore, this case was compared with an internal attribution condition which was perceived (a) to be legitimate and (b) not related to the own group membership (personal identity). Finally, an attribution to social discrimination condition was included which was perceived to be (a) illegitimate and (b) related to one's group membership (social identity). This operationalization leaves out one further possible condition: an attribution to differentiation that is perceived to be legitimate.

*Table 4: Attributions varying along two dimensions: personal identity – social identity and perceived illegitimacy – legitimacy.*

	Illegitimate	Legitimate
Personal identity	External attribution	Internal attribution
Social identity	Attribution to social discrimination	Attribution to differentiation

### **3.3 The impact of perceived legitimacy of a negative group-based treatment on self- and other-directed anger**

In line with Jost and Major (2001) and as a result of the impact of social stereotypes (Crocker et al., 1998), I expect that the experience of legitimate differentiation leads a target to blame her-/himself rather than someone else for the experience of a negative group-based treatment compared to the

experience of illegitimate social discrimination. Thus, differentiation will impact differently on self- and other-directed anger compared to the affective response to illegitimate social discrimination.

*Legitimacy main effect hypothesis on self-directed anger:*

Higher levels of self-directed anger should occur when facing differentiation compared to when the bad treatment is a result of social discrimination or the inappropriate behavior of the perpetrator.

When being treated badly because of an incidence of legitimate differentiation, an individual is likely to regard the perpetrator as less responsible for the negative treatment compared to an incidence of illegitimate social discrimination.

*Legitimacy main effect hypothesis on other-directed anger:*

Other-directed anger should be smaller when attributing a negative treatment to differentiation compared to when attributing it to social discrimination or the inappropriate behavior of the perpetrator.

### **3.4 The moderating effect of perceived legitimacy on social identification and self-directed anger**

Higher levels of social identification serve as a buffer against depressive mood for an individual facing social discrimination that is perceived to be illegitimate (e.g., Cross, 1991; Phinney, 1990, 1996; Branscombe et al., 1999). Studies 1-4 show that this buffering effect also impacts on self-directed anger: higher levels of social identification lead to less self-directed anger when facing illegitimate social discrimination.

So far the impact of social identification on self-directed anger as an outcome of legitimate differentiation has not been studied. To develop a

prediction about the interplay of differentiation and social identification, it is helpful to take a closer look at the definition of differentiation. In order to be called an incidence of differentiation a negative treatment must fulfil the two criteria: first, it must be attributed to the own group membership and second, the negative and unequal treatment must be perceived as legitimate because of the own group membership. For the case of differentiation the own group membership is causing that a target has to face a negative group-based treatment. The higher a group member is identified, the more the self (in this case the social self) is the cause of the negative treatment. Thus, the stronger a target identifies with the group due to which she/he is treated legitimately bad, the more this treatment will impact on the target and in turn, the more the target will be angry at oneself.

*Legitimacy-Attribution x Identification interaction hypothesis on self-directed anger:*

Stronger social identification leads to larger self-directed anger when attributing a negative treatment to differentiation (i.e. *harming effect*), whereas it will lead to lower levels of self-directed anger when attributing it to social discrimination (i.e. *buffering effect*).

*Table 5: Schematic presentation of the hypotheses of the moderating effect of perceived legitimacy and social identification on self-directed anger.*

	Illegitimate	Legitimate
Personal identity	No effect	No effect
Social identity	Buffering effect	Harming effect

In order to test the hypotheses an additional condition in which a negative group-based treatment was attributed to differentiation was included besides the previous attribution to social discrimination condition (Study 1-4).



### 3.5 Study 5

Studies 1-4 found the buffering effect of social identification on self-directed anger only when the negative treatment was attributed to an illegitimate act of social discrimination (i.e. behavior attributed to the own group membership). It is a moot question now whether social identification has also a harming impact on self-directed anger when facing differentiation that is perceived to be legitimate. Therefore, this study included an additional condition in which the participants read a scenario in which an ingroup member (a student who studies psychology as a minor) was not selected to participate in an interesting psychology seminar because the professor believes that she/he as a minor student has too little methodological and statistical knowledge to be able to follow the topic of the seminar. This manipulation was chosen to be able to compare the two conditions of a negative group-based treatment that differ in the perceived legitimacy: differentiation versus social discrimination. In both conditions the student was not selected due to the professor's attitude with minor students. In the legitimate differentiation condition the professor's stereotype about minor students was at least partially shared by the target (i.e. minor student) of the negative treatment. This manipulation was chosen to trigger a social stereotype of minor students.

#### 3.5.1 Method

##### *Design and sample*

Study 5 had three conditions (attribution to social discrimination vs. external attribution vs. attribution to differentiation). Social identification was assessed as independent factor and self- and other-directed anger as dependent variables. Undergraduates of the University of Jena (Germany) (31 women, 16 men; age:  $M = 23$ , range: 20-27) studying psychology as a minor

were recruited in seminars for minor students. They were compensated for their participation with a bar of chocolate.

### *Procedure*

The procedure and materials followed those of Study 1 except for two alterations. First, the salient group membership in the social discrimination and differentiation condition was the group of students who study psychology as minor.

Secondly, the negative feedback in the scenario was the rejection of the participation in an interesting psychology seminar. In order to avoid that the group membership became salient, no reference to the belonging to the group of students who study psychology as a minor was made. Again, in all three conditions the participants had to read a scenario and then put themselves in the position of a student who is trying to get into a seminar. They had to imagine that they were trying to get a class-opener for an interesting seminar in psychology. They had to write a short email indicating their record of classes and their interest why they want to participate in this specific seminar. A couple of days later the person in the scenario in each condition received negative feedback (i.e. the professor rejected them to attend the seminar). The way the feedback was described let them think that it was a result of being a minor student (*attribution to social discrimination*), the inappropriate behavior of the professor (*external attribution*), or of being a minor student and thus, is believed to have a lack of methodological and statistical knowledge (*attribution to differentiation*). Following the instructions of Studies 1-3 in the attribution to social discrimination condition, the participants read that the professor is known to prefer students who study psychology as their major. The person in the scenario saw on a list on the black board that only major students were accepted, and heard that a friend who studies psychology as a minor was

rejected as well. In the external attribution condition the professor was arrogant and unconcentrated. In the legitimate differentiation condition the target person was not allowed to attend the seminar because she/he studied psychology as a minor and thus, the professor expected a lack in methodological and statistical knowledge. This wording was chosen to manipulate the social stereotype of minor students to have a lack of methodological and statistical knowledge as the cause for the rejection. In this condition the student was treated badly (i.e. rejected) based on the group membership that in turn was somehow legitimizing the negative treatment.

### *Measures*

*Anger.* The same anger scales were administered and revealed a very good internal consistency (self-directed anger:  $\alpha = .83$ ; other-directed anger:  $\alpha = .85$ ). The both scales were negatively correlated in the attribution to social discrimination condition ( $r = -.57$ ,  $N = 15$ ,  $p = .03$ ), no correlation emerged in the other two conditions (external attribution:  $r = .07$ ,  $N = 15$ ,  $p = .79$ ; attribution to legitimate differentiation:  $r = .02$ ,  $N = 16$ ,  $p = .95$ ).

*Social identification.* Identification was assessed adapting the scale from Study 1 for the social identification with the group of students who study psychology as a minor. The scale had a good internal consistency ( $\alpha = .79$ ).

*Manipulation checks.* Participants again rated the extent to which they would attribute the rejected class-opener in the scenario to different causes: their belonging to the group of students who study psychology as a minor, the professor, and themselves. In this study, illegitimacy was assessed with the same item used in the other studies that was reversed coded and another item: "How fair would it be, not to be allowed to attend this seminar?" (7-point scale

ranging from 1 = *not fair* to 7 = *fair*). The two items were collapsed into one scale showing a high correlation ( $r = .52$ ;  $p > .001$ ).

### 3.5.2 Results

#### *Social identification*

Social identification did not differ between conditions (attribution to social discrimination:  $M = 2.94$ ,  $SD = 1.33$ ; external attribution:  $M = 2.45$ ,  $SD = 1.17$ ; attribution to differentiation:  $M = 3.30$ ,  $SD = 1.30$ ),  $F(2,44) = .31$ ,  $p = .73$ .

#### *Manipulation checks*

Participants attributed the negative feedback more to their belonging to the group of students who study psychology as a minor in the attribution to social discrimination condition than in the other two conditions (post-hoc: both  $ps < .05$ ; attribution to social discrimination:  $M = 6.25$ ,  $SD = .77$ ; external attribution:  $M = 3.93$ ,  $SD = 2.19$ ; attribution to differentiation:  $M = 4.81$ ,  $SD = 1.60$ ),  $F(2,44) = 8.20$ ,  $p < .001$ . The means did not significantly differ between the external and the attribution to social discrimination condition ( $p = .33$ ), but differed, as intended, on a descriptive level indicating that the negative feedback was stronger attributed to the group membership when facing a differentiation than when it was attributed to the professor's inappropriate behavior. Moreover, as intended, participants stated in the attribution to social discrimination and external attribution condition higher scores for the responsibility of the professor for the negative feedback compared to the attribution to differentiation condition (posthoc-test: both  $ps < .001$ ; attribution to social discrimination:  $M = 6.06$ ,  $SD = 1.18$ ; external attribution:  $M = 5.60$ ,  $SD = 1.30$ ; attribution to differentiation:  $M = 3.00$ ,  $SD = 1.46$ ),  $F(2,44) = 24.92$ ,  $p < .001$ . Finally, no difference was detected for

the own responsibility between all three conditions (attribution to social discrimination:  $M = 2.69$ ,  $SD = 1.45$ ; external attribution:  $M = 2.40$ ,  $SD = 1.35$ ; attribution to differentiation:  $M = 3.06$ ,  $SD = 1.81$ ),  $F(2,44) = .71$ ,  $p < .50$ .

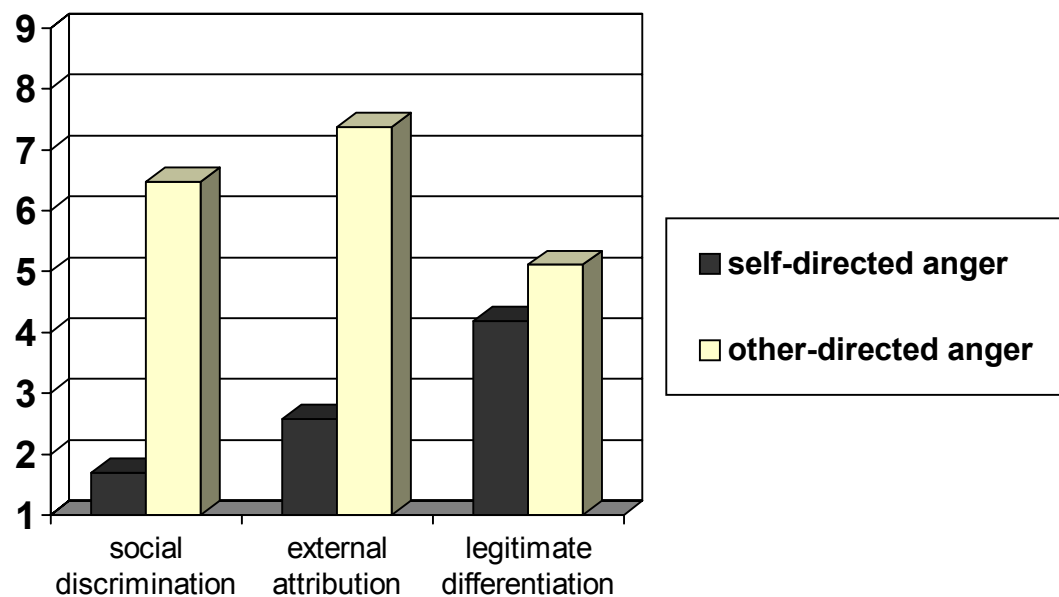
The perceived illegitimacy of the negative feedback differed in the intended way between the conditions (attribution to social discrimination:  $M = 2.13$ ,  $SD = 1.09$ ; external attribution:  $M = 2.13$ ,  $SD = .88$ ; attribution to differentiation:  $M = 3.34$ ,  $SD = 1.79$ ,  $F(2,44) = 4.50$ ,  $p = .02$ ). The behavior of the professor was perceived as more illegitimate in the attribution to social discrimination and the external attribution condition than in the attribution to differentiation one (posthoc-test: both  $ps < .05$ ), whereas the perceived illegitimacy did not differ between the first two conditions ( $p = 1.00$ ). As intended, this pattern illustrates that differentiation due to a shared social stereotype of minor students in psychology is perceived to be more legitimate compared to social discrimination due to the prejudice of the perpetrator.

### *Anger*

In separate multiple regressions (see Table 6) self- and other-directed anger were regressed on the Attribution (attribution to social discrimination vs. external attribution, vs. attribution to differentiation), Social Identification, Other-directed Anger as covariate, Attribution x Other-directed Anger interaction, and Attribution x Identification interaction. The attribution variable was coded as in Study 1. The simple slopes were computed separately for the three conditions.

Self-directed anger was expected to be higher in the attribution to differentiation than in the attribution to social discrimination and external attribution condition. Furthermore, it was predicted that stronger social identification would result in less self-directed anger in the attribution to social discrimination (replicating the findings of Studies 1-4), stronger social

identification would result in more self-directed anger in the attribution to differentiation but no impact in the external attribution condition. As expected, the main effect of Attribution emerged (1st contrast:  $\beta = .52$ ,  $p < .001$ ; 2nd contrast:  $\beta = .31$ ,  $p < .001$ ) such that self-directed anger was higher in the attribution to differentiation condition ( $M = 4.19$ ,  $SD = 1.80$ ) compared to the both other conditions (attribution to social discrimination:  $M = 1.70$ ,  $SD = .64$ ; external attribution:  $M = 2.58$ ,  $SD = 1.54$ ) (see Figure 10). Social identification had a main effect on self-directed anger,  $\beta = .36$ ,  $p = .01$ . Furthermore, other-directed anger was included as a covariate in the regression analysis that did not impact on self-directed anger,  $\beta = .01$ ,  $p = .95$ .




---

self-directed anger	1.70 (.64)	2.58 (1.54)	4.19 (1.80)
other-directed anger	6.48 (1.46)	7.37 (1.39)	5.11 (2.00)

---

*Figure 10: Mean self- and other-directed anger (standard deviations in brackets) as a function of type of attribution to negative feedback (Study 5).*

Consistent with the prediction, the analysis revealed a significant Attribution x Identification interaction [ $R^2$  change = .13,  $F(2,37) = 6.35$ ,  $p = .004$ ]. In line with the expectations, simple slope analysis indicated that social identification was negatively related to self-directed anger in the attribution to social discrimination condition,  $\beta = -.47$ ,  $p = .03$ , whereas, this relation emerged the other way around in the attribution to differentiation condition: higher levels of social identification led to an increase of self-directed anger,  $\beta = .60$ ,  $p = .02$ . Surprisingly, stronger social identification was positive related to self-directed anger in the external attribution condition,  $\beta = .65$ ,  $p = .01$  (see Figure 11). The

Attribution x Other-directed Anger interaction did not have an impact (both  $\beta$ s > .21, both  $p$ s > .16).

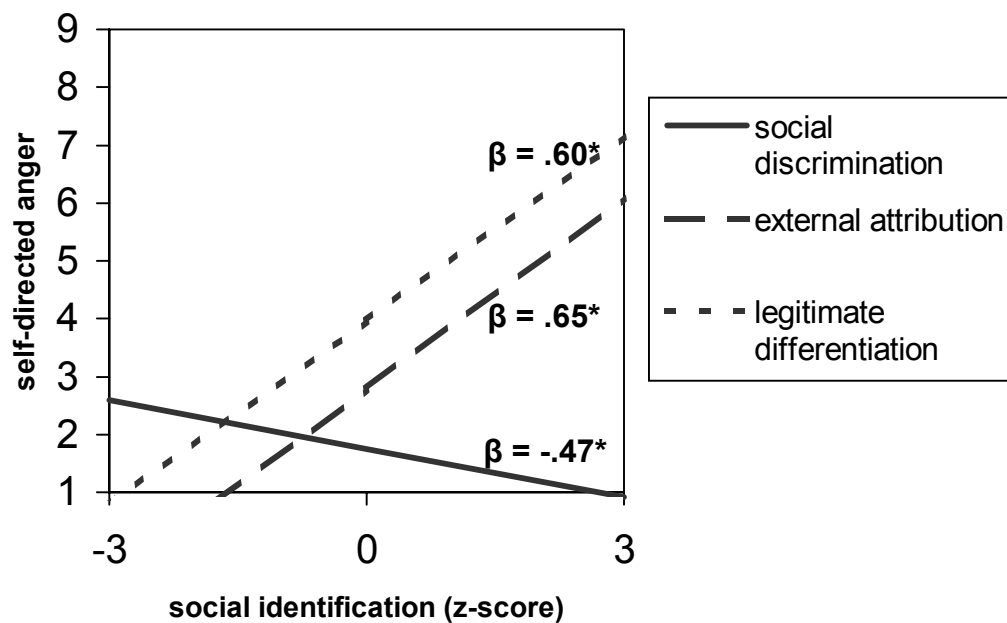


Figure 11: Self-directed anger as a function of group identification and type of attribution (Study 5).

In line with the expectations, the regression analysis on other-directed anger revealed a main affect of Attribution (1st contrast:  $\beta = -.07$ ,  $p = .67$ ; 2nd contrast:  $\beta = -.40$ ,  $p = .02$ ), higher other-directed anger was found in the external attribution condition ( $M = 7.37$ ,  $SD = 1.39$ ) and the attribution to social discrimination condition ( $M = 6.48$ ,  $SD = 1.46$ ) than in the attribution to differentiation condition ( $M = 5.11$ ,  $SD = 2.00$ ). Furthermore, social identification was not related to other-directed anger,  $\beta = -.24$ ,  $p = .17$ . We included self-directed anger as a covariate in the regression analysis that did not impact on



other-directed anger,  $\beta = -.08$ ,  $p = .64$ . The Attribution x Identification interaction was not significant,  $R^2$  change = .001,  $F(2,37) = .001$ ,  $p = .99$ .

*Table 6: Standardized regression weights ( $\beta$ ), unstandardized regression weights (B), and standard errors (SE) from multiple regressions of self-directed anger (SDA) on attribution and social identification in Study 5 (N = 47).*

	SDA		
	$\beta$	B	SE
Identification	.36**	.63	.19
Attribution1 (social discrimination -1, external 0, differentiation 1)	.52**	1.09	.28
Attribution2 (social discrimination 0, external -1, differentiation 1)	.31**	.04	.31
Other-directed Anger (covariate)	.01	.01	.31
Attribution1 x Other-directed Anger	.21	.45	.32
Attribution2 x Other-directed Anger	-.14	-.29	.33
Attribution1 x Identification	.44**	.91	.26
Attribution2 x Identification	-.21	-.47	.28

Note: \*:  $p < .05$ , \*\*:  $p < .01$

### 3.5.3 Discussion

The results support the prediction that lower levels of self-directed anger emerged when attributing a negative treatment to differentiation compared to when attributing it to social discrimination or the inappropriate behavior of the perpetrator. Furthermore, other-directed anger was smaller when attributing a negative treatment to differentiation compared to when attributing it to social discrimination or the inappropriate behavior of the perpetrator. These results illustrate that an attribution to differentiation impacts differently on the affective response than an attribution to social discrimination.

Moreover, this study replicates the finding of Studies 1-4 for the buffering impact of social identification on self-directed anger when facing social discrimination that is perceived to be illegitimate. The results of Study 5 further illustrate the limits of this buffering effect of social identification. When facing differentiation, the relation between higher levels of social identification and self-directed anger turned around: in this case stronger social identification lead to an increase of self-directed anger. When facing differentiation, the stronger the participants identified with the group of students who study psychology as a minor, the more they were angry toward the self. Again when attributing the negative feedback to the inappropriate behavior of the professor no such relation between social identification and self-directed anger emerged.

These results clearly support the hypothesis (i.e. *buffering effect*) that only when a negative group-based treatment is perceived to be illegitimate (i.e. social discrimination) higher social identification serves as a buffer for the self and decreases the individual affective vulnerability. However, the results of this study illustrate that strong social identification can also increase the affective vulnerability of a target (i.e. *harming effect*) when facing a negative group-based treatment. This is the case when the negative group-based treatment is attributed to an incidence of differentiation which is perceived to be legitimate by

the target. In conclusion, strong social identification only protects targets of a negative treatment when they attribute the treatment to social discrimination.

It is now questionable what is driving this harming effect of social identification on self-directed anger when attributing a negative group-based treatment to perceived legitimate differentiation. The stronger a target identifies with the own group, the stronger the target will believe to possess the stereotype due to which the target received the negative group-based treatment. This in turn is likely to impact on the perceived legitimacy of the negative group-based treatment in that way that the incidence of differentiation is regarded to be more legitimate. As a consequence, the stronger a target internalizes the stereotype (e.g., Steele, 1997), the more the target will blame her/himself to deserve this negative treatment (for a review see Taylor et al., 1994). Consequently, this will lead to an increase of self-directed anger.

The predicament of stigmatized people is that they experience social discrimination frequently on a daily basis and severe across a wide range of situations (for an overview see Crocker et al., 1998). Research has shown that stigmatized people often believe that they deserve the treatment they receive from others and tend to blame themselves rather than others (for a review see Taylor et al., 1994). Endorsing these ideologies has been shown to be associated with better psychological functioning (Taylor & Brown, 1988; Tomaka & Blascovich, 1994). This line of research has so far not looked at the impact of social identification in this context. According to the results of the present study, the effect of better psychological functioning seems to be restricted to low identifiers who experience smaller self-directed anger. High identified targets show higher levels of self-directed anger when facing a negative treatment that can be attributed to differentiation.

The belief that group boundaries are permeable and allow for individual mobility to improve the own status also impacts on the perception of and

attributions to social discrimination. Tajfel (1982) described the belief of individual mobility that group boundaries are permeable as a primary determinant of the behavior of disadvantaged groups. Individuals differ in the extent to which they endorse this belief. The stronger a target believes in individual mobility, the less the target attributes negative treatment to social discrimination (e.g., Major, Gramzow, McCoy, Levin, Schmader, & Sidanius, 2002). Thus, if the group boundaries are permeable and a target of social discrimination endorses the belief of personal mobility, the individual is likely not to attribute a negative treatment to social discrimination and hence, take action against the personally experienced negative treatment – hopefully to foster social change. This line of research has studied the impact of social identification but has not yet studied the impact of perceived legitimacy between social discrimination versus differentiation

To conclude, the aim of this study was to examine the impact of perceived legitimacy of a negative group-based treatment (i.e. social discrimination versus differentiation). This study filled a gap as discussed in previous research by studying the impact of perceived legitimacy of a negative group-based treatment and social identification on self-directed anger.

## 4 GENERAL DISCUSSION

### 4.1 Summary of the results

The current research had three research goals on the agenda. Five studies aimed to examine the impact of the attribution of negative treatment (1) on self- and other-directed anger as affective response and (2) social identification on self- and other-directed anger. Finally (3) the impact of perceived legitimacy of a negative group-based treatment and social identification on self- and other-directed anger by distinguishing between an attribution to social discrimination and differentiation was studied.

The first goal was addressed in Studies 1-4. The type of attribution of the negative treatment was predicted to impact differently on self- and other-directed anger. In line with the prediction, a negative treatment attributed to social discrimination and to external factors results in higher levels of other-directed anger compared to negative treatment attributed to internal factors. Conversely, a negative treatment attributed internally results in higher levels of self-directed anger compared to a treatment attributed to social discrimination or to external factors.

Studies 1-4 addressed additionally the second goal, which was to study the impact of social identification in this context. The attribution of a negative treatment was expected to moderate the impact of social identification on self-directed anger. The results revealed, as hypothesized, that stronger identification resulted in less self-directed anger after an attribution to social discrimination (i.e. *buffering effect*), but not after an external or an internal attribution. Study 3 set out to understand the causal direction of the effect: Social identification impacts on self-directed anger and not the other way around when attributing a negative treatment to social discrimination, but no

relation between both variables was found when attributing it to the inappropriate behavior of the perpetrator. Furthermore, the buffering impact of social identification on self-directed anger when facing social discrimination was found both in scenario studies (Studies 1-3) and could be extended to personal real life experience of social discrimination in Study 4.

The third and final goal was addressed in Study 5. This set out to test whether the perceived legitimacy of a negative group-based treatment moderates the impact of social identification on self-directed anger. The results illustrate the limits of the buffering impact of social identification for the individual's emotional vulnerability (see Studies 1-4). Only when a negative group-based treatment is attributed to social discrimination that means it is perceived to be illegitimate, strong social identification does serve as a *buffer* and lead to a decrease in self-directed anger. This impact is reversed if the negative group-based treatment is attributed to differentiation that is perceived to be legitimate. In this case, strong social identification *harms* the individual emotional vulnerability by increasing levels of self-directed anger.

## 4.2 Results in light of previous research

The current results are a step forward to resolving the controversy between Branscombe and colleagues (e.g., Branscombe et al., 1999) on the one hand and Major and colleagues (e.g., McCoy & Major, 2003) on the other. The results of the first four studies yield support for the argument that is in line with Schmitt and Branscombe's prediction of self-protection for individuals highly identified with their group when experiencing illegitimate social discrimination (2002b; Branscombe et al., 1999). In contrast with this argument and the results of Studies 1-4, McCoy and Major (2003) argue that only low identified individuals are protected when facing an incidence of social discrimination.

A closer look at the previous findings on the impact of social discrimination and social identification on depressive mood (Branscombe et al., 1999; McCoy & Major, 2003) might shed some light on and help to understand the contradicting results. Previous research has so far not paid attention to the legitimacy of negative group-based treatments. In this thesis, the investigation of the perceived legitimacy of a negative group-based treatment by distinguishing between social discrimination versus differentiation is a first step to better understanding the contrary assumptions and results of Branscombe and colleagues (1999) in contrast to McCoy and Major (2003). In the studies supporting the two contrary predictions different types of negative treatment were used to operationalize social discrimination. In order to compare both approaches, it is worthwhile to apply Kelley's principles of attribution (1973).

*Branscombe and colleagues (1999)* studied the experience of social discrimination across a variety of situations with different perpetrators in targets' past, and in future hypothetical situations. On a list of described scenarios in which African-Americans are likely to face social discrimination, participants had to circle the percentage to which they would attribute the described negative treatment to social discrimination. The answers were collapsed into one measure. This operationalisation leaves open whether they have in fact studied incidences of social discrimination or differentiation. The authors themselves argue that they tested African-Americans because they tend to perceive race-based social discrimination as illegitimate which would by definition rule out instances of differentiation (Major, 1994).

According to Kelley's theory of attribution three factors impact on a causal attribution. In the study of Branscombe and colleagues (1999), the *consistency* (i.e. the degree to which the target experiences that same negative group-based treatment from the perpetrator on different occasions) is high, because the items measure different contexts in which the perpetrator discriminates against African-Americans. The *distinctiveness* (i.e. the degree to

which the same perpetrator performs a negative group-based treatment with different targets) is not measured. The items did not measure whether a specific perpetrator discriminates against other African-Americans as well, the items asked for personal experiences. Even though the participants did not provide any information on the distinctiveness, it is likely that the participants assume on the basis of their own group membership that other ingroup members will experience the same negative group-based treatment (i.e. the distinctiveness is low). The *consensus* (i.e. the degree to which the target experiences a negative group-based treatment from different perpetrators) is high, because the items include different perpetrators discriminating against African-Americans.

In sum, the target in this study (Branscombe et al., 1999) has faced a negative group-based treatment from the perpetrator on different occasions (high consistency), assumes that other ingroup member have to face this experience as well (low distinctiveness), and other perpetrators have treated the target badly due to the own group membership as well (high consensus). According to Branscombe and colleagues (1999), such an attribution to social discrimination is rather an internal (i.e. group membership) than external attribution (i.e. prejudice of the perpetrator) that will protect high identified targets. Thus, they have studied the experience of social discrimination across a variety of situations, with different perpetrator groups, and over time from a retrospective that will lead to different psychological consequences than studying the experience of a single incidence of social discrimination. For example, 'chronically' stigmatized often believe they deserve the inequity (see Chapter 3, p. 69; Taylor et al., 1994). This would not be the case for a single incidence of a negative group-based treatment, as discussed in the following paragraph.

To begin with in contrast, *McCoy and Major (2003)* implemented the concept of 'social discrimination' with a different procedure. They studied the impact of the experience of 'social discrimination' for a single incidence in the



laboratory. All female participants received negative feedback by a prerecorded male voice on a short speech they had prepared. Prior to being asked to form an impression of the male evaluator, participants exchanged attitude questionnaires with him to facilitate impression formation. Depending on the condition, the female participants either learned that the evaluator was prejudiced against women or not. This operationalisation is different to that of Branscombe and colleagues (1999) in two respects. First, McCoy and Major (2003) studied a single incidence of 'social discrimination' which was likely to trigger different attributions. This manipulation lead to low *consistency*. Because of the single incidence, no further consistency information was given. Moreover, the *distinctiveness* and the *consensus* information were also not given in this context. As a result, the necessary information to generalize this experience was missing and did not amount to a stable attribution of social discrimination. Given the fact that the participants faced a single incidence, they attributed the negative treatment externally, i.e. to this specific man.

Secondly, 'social discrimination' was manipulated by receiving negative feedback in a work-setting. This manipulation may have triggered the female's attitude that she is not adept at this task. Research has demonstrated that women tend to underperform in several contexts where they have to face stereotype threat (e.g., leadership aspirations, Davies, Spencer, & Steele, 2005; intellectual ability and performance, Steele, 1997; math performance, Spencer, Steele, & Quinn, 1999). Therefore, the setting of the study may have been confounded by women believing themselves to underperform in this context. As a consequence, female participants might believe themselves as performing badly at this task and that they in turn deserve the negative feedback (i.e. at least partly legitimate negative feedback). Thus, this setting of the study might have manipulated differentiation rather than social discrimination according to Mummendey and Otten (2004). This would explain why these results of McCoy and Major (2003) show a similar pattern to the results in the differentiation

condition of Study 5: when facing a negative group-based treatment higher levels of social identification lead to higher levels of depressive mood.

To conclude, both approaches differ in the employed operationalization. Branscombe and colleagues (1999) studied the impact of long-term social discrimination from a retrospective standpoint and McCoy and Major (2003) examined the impact of short-term differentiation, which therefore leads to different implications. Both examined the negative treatment due to own group membership. Both therefore fulfil the first criteria of a negative treatment as defined by Major and colleagues (2002) as an incidence of social discrimination. More importantly, these two approaches differ in the perceived legitimacy of the negative group-based treatment. Branscombe and colleagues (1999) investigated the impact of illegitimate acts, whereas McCoy and Major (2003) examined the impact of legitimate acts. Following this reasoning, the results of Study 5 indicate how the controversy between Branscombe and colleagues (e.g., Branscombe et al., 1999) on the one hand, and Major and colleagues (e.g., McCoy & Major, 2003) on the other might be resolved.

### **4.3 Underlying processes**

This present research found convincing support for the Attribution by Identification interaction hypothesis on self-directed anger. Social identification was found to have a considerable impact in the context of social discrimination and differentiation. Here, notions concerning the underlying processes and a more precise analysis of the impact of different perpetrators will be discussed, and conclusions for future research then drawn.

*The group as a source of social and emotional support*

A conclusion that might be drawn from the presented data is that by identifying strongly with a group, individuals are protected against self-directed anger only if the social discrimination was perceived to be illegitimate. Several other studies have also shown a positive relationship between social identification and well-being among members of stigmatized groups (e.g., Branscombe et al., 1999; Crosby, Pufall, Snyder, O'Connell, & Whalen, 1989). In line with these authors, I believe that social identification - the feeling of belonging to a group - has such positive effects because the ingroup serves as a source of social and emotional support. This in turn protects individual group members, irrespective of whether they are alone or with other group members, when they are faced with social discrimination. Up to date, research has not examined the cognitive underlying processes of this buffering effect of social identification. Further research should therefore investigate the determinants that trigger this effect.

When a target perceives the negative group-based treatment as legitimate, social identification has the reversed impact on self-directed anger. In this case the harming impact of legitimate differentiation and social identification on self-directed anger (i.e. strong social identification increases the individual vulnerability), can be explained as follows. When facing differentiation, the own group membership is the cause for a target having to face this negative treatment. The target has internalized the group's attribute, and it is due to this attribute that the target is discriminated against. The stronger a target is identified with her/his own group, the more the social self is the cause of the negative treatment. Furthermore, the target perceives the negative group-based treatment as legitimate, and thus is angry at the cause of the negative treatment – oneself (in this case the social self). Hence, the stronger a target identifies with her/his own group due to which she/he is treated legitimately bad, the more this treatment will effect the target and, following from this, the more the target

will be angry at her- or himself. This explanation has likewise not been tested empirically, and thus should be investigated in future research.

### *Comparative processes*

An alternative possible process is that the perception and the appraisal (i.e. a central cause for affect) of an incidence of a negative group-based treatment might be different depending on the level of social identification. In line with the results when facing an incidence of *social discrimination* low identified individuals might have a more individualistic perspective on the situation. Therefore, they are likely to feel more responsible for the negative feedback, and in turn show higher levels of self-directed anger. Also, compared to highly identified individuals, low identifiers might compare themselves more on the basis of a temporal comparison with the self in other situations in the past. In contrast, high identified individuals are likely to compare themselves more on the basis of an intragroup comparison compared to low identified individuals (e.g., Kessler, Mummendey & Leisse, 2000; Postmes, Branscombe, Spears, & Young, 1999; Zagefka & Brown, 2005). Thus, high identified individuals might consider themselves as only one ingroup member facing this negative experience, and this would buffer negative affect because the intergroup comparison is not negative.

These comparative processes seems to be different for a target facing an incidence of *differentiation*. Low identified individuals facing an incidence of differentiation show the same level of self-directed anger as low identified individuals facing an incidence of social discrimination. It is likely that low identified individuals for whom the group membership is not important and accessible hold a more individualistic perspective irrespectively whether they face an incidence of differentiation or social discrimination. More interestingly, is the comparative process of highly identified individuals. Highly identified

individuals facing an incidence of differentiation might believe that they deserve the negative treatment on the basis of the social stereotype of their ingroup. They might compare themselves more on the basis of intragroup comparison compared to low identified individuals. Even though, they might only experience one incidence of differentiation, they would believe that they deserve this treatment. Thus, this perception is likely to elicit high levels of self-directed anger. These assumptions for the comparative processes of low and highly identified individuals facing an incidence of social discrimination or differentiation has not yet been tested. Thus, further research should address this.

#### *The impact of personal versus social identity*

Moreover, the extent to which individuals identify with their ingroup impacts on the strength of their activated personal or social identity in a given context. For low identified individuals it is likely that their personal identity is more accessible than their social identity. For highly identified individuals this is likely to be the other way around: the social identity is more accessible than the personal identity. As a consequence, individuals will perceive the negative treatment differently depending on their salient identity. According to relative deprivation theory (e.g., Crosby, 1976; 1982; Runciman, 1966; Stouffer et al., 1949), individuals show different responses depending on whether deprivation is occurring at the individual or group level (Smith & Oritz, 2002). In line with the reasoning in the previous paragraph, low and highly identified individuals do not only differ in their comparisons. Whether the personal or social identity is more accessible influences the target's perception of the situation, and each will lead to different responses. Low identified individuals are likely to choose individual strategies, whereas highly identified individuals tend to chose collective strategies (for a further discussion see p. 102).

*The sociofunctional threat-based approach to 'prejudice'*

To date, research has not examined the impact of different groups discriminating against a target group. More recently, the *sociofunctional threat-based approach to 'prejudice'* (Cottrell & Neuberg, 2005) suggests distinguishing emotional responses to different groups. In their study Cottrell and Neuberg (2005) demonstrated that different social groups elicited different profiles of affect and threat reactions. Moreover, the results indicate that specific classes of threat were related to specific, functionally relevant emotions, and groups similar in the threat profiles were also similar in the emotion profiles they elicited. These results suggest that future research on affective (and behavioral) responses to social discrimination should consider the different threats elicited by different groups. Moreover, an important agenda for future research should be to differentiate more precisely the threat of different perpetrator groups by identifying, for example, perpetrator's and target's underlying motives and goals.

**4.4 Implications for long-term consequences**

This thesis has examined the immediate affective response of self- and other-directed anger after the experience of a negative group-based treatment. Subsequently, the implications of the effects found for long-term consequences on behavioral strategies, health, and legitimizing beliefs of social discrimination are discussed.

*Anger and social identification impacting on behavioral strategies*

Whereas the main focus of the discussion until now was on the Attribution by Identification interaction on self-directed anger, the discussion will now focus on the main effect of the type of attribution to a negative treatment.

So far, research has mostly studied the impact of social discrimination on depressive mood (e.g., Branscombe et al., 1999; McCoy & Major, 2003; Major et al., 2002), but little attention has been paid to Weiner's (1985) notion of the direction of affect. The two directions – self-directed versus other-directed anger – trigger different behavioral responses. Other-directed anger is likely to trigger action tendencies towards the perpetrator of discrimination, whereas self-directed anger is less likely to elicit this type of action tendency. Mackie and colleagues (Mackie et al., 2000; Mackie & Smith, 2002) showed that group-based anger mediates the effects of perceived ingroup strength on action tendencies towards the outgroup. Furthermore, much research has examined the impact of social identification on collective action. According to this line of research, only high identifiers will pursue collective action (for a review see Tropp & Wright, 2002). Unlike the current studies, these studies investigated the impact of social discrimination on action tendencies against an outgroup and not towards a single perpetrator. Nonetheless, these results suggest that further research should also examine action tendencies resulting from individual (i.e. without other ingroup members present) experiences of social discrimination.

In the field of social discrimination, research on coping strategies has examined individualistic and group-level coping strategies (Branscombe & Ellemers, 1998). This research did not differentiate between coping strategies as response to illegitimate social discrimination versus legitimate differentiation. Based on the results of Study 5, it seems worthwhile to pay attention to this moderator, as legitimizing beliefs on the side of the stigmatized have an important impact on their responses to social discrimination. Furthermore, future research should identify adaptive coping strategies that result from self-directed anger.

*The impact of anger on health*

Besides triggering action tendencies in the short run, anger also elicits health problems in the long run. Research has suggested that the related traits of hostility, anger, and aggressiveness are risk factors for coronary heart disease (for an overview see Smith, Glazer, Ruiz, & Gallo, 2004). Further research has shown that African-Americans respond to social discrimination with anger, cardiovascular reactivity, and resting blood pressure (for an overview see Clark et al., 1999). Unfortunately, this research has not differentiated between self- and other-directed anger, and the impact of social identification. Nonetheless, taken together with the present results these findings incorporate a two-sided message: on the one hand these findings suggest that social identification with one's stigmatized group might help to prevent coronary heart disease that could otherwise result from the frequent experience of illegitimate social discrimination. On the other hand it could also worsen coronary heart disease which would result from the frequent experience of legitimate differentiation. Legitimizing beliefs may help the target to justify the experience of differentiation and also social discrimination in the short run, but these findings further suggest that this leads to more coronary heart disease in the long run.

*The devastating impact of perceived legitimacy*

Individuals of some stigmatized groups believe that they deserve the negative treatment they face (for a review see Taylor et al., 1994). Legitimizing beliefs even foster the perception that a negative treatment is fair and one deserves the inequality (e.g., Jost & Major, 2001). This evidence has a devastating effect on the hope that social change will fight social discrimination and differentiation. This present research has investigated the impact of short-term experience of a negative but legitimate group-based treatment (i.e.



differentiation) by implementing stereotype threat. So far it is unclear how the long-term experience of social discrimination impacts on the perception of legitimacy of this negative group-based treatment. Thus, it is important that future research investigates the process of how the perceived legitimacy of a negative group-based treatment changes over time – from the perception of an incidence of social discrimination to an incidence of differentiation. This seems especially worthwhile because individuals experiencing differentiation may not want to pay the costs of taking action. In the long run this ‘false consciousness’ will worsen health problems and, ultimately, inhibit social change.

#### **4.5 Conclusions**

To conclude, facing social discrimination has severe consequences for the target in the long run. In this thesis targets who are experiencing a negative treatment due to their own group membership have been studied as active respondents in intergroup relations and not only as passive victims by investigating their immediate response of self- and other-directed anger. Furthermore, the present findings demonstrate that, when facing illegitimate social discrimination, high levels of social identification protect the individual insofar as higher identification decreases self-directed anger. This buffering impact disappears when facing legitimate differentiation. In this case, higher identification leads to an increase of self-directed anger. Thus, the perceived legitimacy of an incidence of a negative group-based treatment plays a crucial role in the response to it. These results are a further step towards a better understanding of the impact of social identification on the target’s affective responses following the experience of an incidence of social discrimination or differentiation.

## REFERENCES

- Abe, J. S., & Zane, N. W. S. (1990). Psychological maladjustment among Asian and White American college students: Controlling for confounds. *Journal of Consulting and Clinical Psychology, 37*, 437-444.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park: Sage.
- Allison, K. W. (1998). Stress and oppressed category membership. In J. K. Swim & C. Stangor (Eds.), *Prejudice: The target's perspective* (pp. 145-170). San Diego: Academic Press.
- Allport, G. (1979). *The nature of prejudice*. New York: Doubleday Anchor. (Original work published in 1954)
- Amodio, D. M., & Devine, P. G. (2005). Changing prejudice: The effects of persuasion on implicit and explicit forms of race bias. In T. C. Brock & M. C. Green (Eds.), *Persuasion: Psychological insights and perspectives*, 2nd ed. (pp. 249-280). Thousand Oaks: Sage Publications.
- Aneshensel, C. S., Clark, V. A., & Frerichs, R. R. (1983). Race, ethnicity, and depression: A confirmatory analysis. *Journal of Personality and Social Psychology, 44*, 385-398.
- Ashmore, R. D., Deaux, K., & McLaughlin-Volpe, T. (2004). An organizing framework for collective identity: Articulation and significance of multidimensionality. *Psychological Bulletin, 130*, 80-114.
- Ayduk, O., Downey, G., & Kim, M. (2001). Rejection sensitivity and depressive symptoms in women. *Personality and Social Psychology Bulletin, 27*, 868-877.

- Ayduk, O., May, D., Downey, G., & Higgins, E. T. (2003). Tactical differences in coping with rejection sensitivity: The role of prevention pride. *Personality and Social Psychology Bulletin*, 29, 435-448.
- Ayduk, O., Mendoza-Denton, R., Mischel, W., Downey, G., Peake, P. K., & Rodriguez, M. (2000). Regulating the interpersonal self: Strategic self-regulation for coping with rejection sensitivity. *Journal of Personality and Social Psychology*, 79, 776-792.
- Banaji, M. R., & Greenwald, A. G. (1994). Implicit stereotyping and unconscious prejudice. In M. P. Zanna & J. M. Olson (Eds.), *The psychology of prejudice: The Ontario Symposium* (Vol. 7, pp. 55-76). Hillsdale: Erlbaum.
- Barreto, M., & Ellemers, N. (2005). The perils of political correctness: Men's and women's responses to old-fashioned and modern sexist views. *Social Psychology Quarterly*, 68, 75-88.
- Bodenhausen, G. V., & Macrae, C. N. (1998). On social judgment and social justice: Further reflections on stereotyping and its avoidance. In R. S. Wyer, Jr. (Ed.), *Stereotype activation and inhibition: Advances in social cognition* (Vol. 11, pp. 243-256). Mahwah: Erlbaum.
- Bodenhausen, G. V., Macrae, C. N., & Garst, J. (1998). Stereotypes in thought and deed: Social-cognitive origins of intergroup discrimination. In C. Sedikides & J. Schopler (Eds.), *Intergroup cognition and intergroup behavior* (pp. 311-335). Mahwah: Erlbaum.
- Bohner, G., & Sturm, S. (1997). Evaluative Aspekte sozialer Identität bei Frauen und Männern: Vorstellung einer Skala des Kollektiven Selbstwerts in bezug auf das Geschlecht [Evaluative aspects of social identification of women and men: Presentation of a scale to assess the collective self-esteem of gender]. *Psychologische Beiträge*, 39, 322-335.

- Braddock, J. H., & McPartland, J. M. (1987). How minorities continue to be excluded from equal employment opportunities: Research on labour market and institutional barriers. *Journal of Social Issues*, 43, 5-39.
- Branscombe, N. R., & Ellemers, N. (1998). Coping with group-based discrimination: Individualistic versus group-level strategies. In J. Swim & C. Stangor (Eds.), *Prejudice: The target's perspective* (pp. 243-266). San Diego: Academic Press.
- Branscombe, N. R., Schmitt, M. T., & Harvey, R. D. (1999). Perceiving pervasive discrimination among African Americans: Implications for group identification and well-being. *Journal of Personality and Social Psychology*, 77, 135-149.
- Brown, R. P., & Pinel, E. C. (2003). Stigma on my mind: Individual differences in the experience of stereotype threat. *Journal of Experimental Social Psychology*, 39, 626-633.
- Cartwright, D. (1950). Emotional dimensions of group life. In M. L. Raymert (Ed.), *Feelings and emotions* (pp. 439-477). New York: McGraw-Hill.
- Cash, T. F., Gillen, B., & Burns, D. S. (1977). Sexism and beautyism in personnel consultant decision making. *Journal of Applied Psychology*, 62, 301-310.
- City of Munich (2004). *Unterm Regenbogen: Lesben und Schwule in München. Ergebnisse einer Befragung durch die Landeshauptstadt München* [Under the rainbow: Lesbians and gays in Munich. Results of a survey done by the City of Munich]. Direktorium, Koordinierungsstelle für gleichgeschlechtliche Lebensweisen (Eds.). München: Druck Stadtkanzlei. Retrieved May 24, 2005, from [http://www.muenchen.de/vip8/prod2/mde/\\_de/rubriken/Rathaus/40\\_dir/gleichgeschlechtl/veroeffentlichung.pdf](http://www.muenchen.de/vip8/prod2/mde/_de/rubriken/Rathaus/40_dir/gleichgeschlechtl/veroeffentlichung.pdf)

- Clark, R., Anderson, N. B., Clark, V. R., & Williams, D. R. (1999). Racism as a stressor for African Americans. A biopsychosocial model. *American Psychologist*, 54, 805-816.
- Cottrell, C. A., & Neuberg, S. L. (2005). Different emotional reactions to different groups: A sociofunctional threat-based to "prejudice". *Journal of Personality and Social Psychology*, 88, 770-789.
- Crandall, C. S., & Martinez, R. (1996). Culture, ideology and anti-fat attitudes. *Personality and Social Psychology Bulletin*, 22, 1165-1176.
- Crocker, J., Cornwell, B., & Major, B. (1993). The stigma of overweight: Affective consequences of attributional ambiguity. *Journal of Personality and Social Psychology*, 64, 60-70.
- Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review*, 96, 608-630.
- Crocker, J., & Major, B. (1994). Reactions to stigma: the moderating role of justifications. In M. P. Zanna & J. M. Herman (Eds.), *The psychology of prejudice: The Ontario Symposium* (Vol. 7, pp. 289-314). Hillsdale: Erlbaum.
- Crocker, J., Major, B., & Steel, C. (1998). Social stigma. In D. T. Gilbert & S. T. Fiske (Eds.), *Handbook of social psychology* (pp. 504-553). New York: McGraw-Hill.
- Crocker, J., Voelkl, K., Testa, M., & Major, B. (1991). Social stigma: The affective consequences of attributional ambiguity. *Journal of Personality and Social Psychology*, 60, 218-228.
- Crosby, F. (1976). Model of egoistical relative deprivation. *Psychological Review*, 83, 85-113.

- Crosby, F. (1982). *Relative deprivation and working women*. New York: Oxford University Press.
- Crosby, F. (1984). The denial of personal discrimination. *American Behavioral Scientist*, 27, 371-386.
- Crosby, F., Bromley, S., & Saxe, L. (1980). Recent unobtrusive studies of Black and White discrimination and prejudice: A literature review. *Psychological Bulletin*, 87, 546-563.
- Crosby, F., Pufall, A., Snyder, R. C., O'Connell, M., & Whalen, P. (1989). The denial of personal disadvantage among you, me, and all the other ostriches. In M. Crawford & M. Gentry (Eds.), *Gender's thought: Psychological perspectives* (pp. 79-99). New York: Springer.
- Cross, W. (1991). *Shades of black: Diversity in African-American identity*. Philadelphia: Temple University Press.
- Davies, P. G., Spencer, S. J., & Steele, C. M. (2005). Clearing the air: Identity safety moderates the effects of stereotype threat on women's leadership aspirations. *Journal of Personality and Social Psychology*, 88, 276-287.
- Deaux, K. (1996). Social identification. In E. T. Higgins & A. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 777-798). New York: Guilford.
- DeSteno, D., Dasgupta, N., & Bartlett, M. Y. (2004). Prejudice from thin air: The effect of emotion on automatic intergroup attitudes. *Psychological Science*, 15, 319-324.
- Devine, P. G. (1989). Stereotyping and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology*, 56, 5-18.

- Dion, K. L., & Berscheid, E. (1974). Physical attractiveness and peer perception among children. *Sociometry*, 37, 1-12.
- Dion, K. L., & Earn, B. M. (1975). The phenomenology of being a target of prejudice. *Journal of Personality and Social Psychology*, 32, 944-950.
- Dovidio, J. F., Gaertner, S. L., & Nier, J. A. (2004). Contemporary racial bias: When good people do bad things. In A. G. Miller (Ed.), *Social psychology of good and evil* (pp. 141-167). New York: Guilford Press.
- Dovidio, J. F., & Gaertner, S. L. (1986). Prejudice, discrimination, and racism: Historical trends and contemporary approaches. In J. F. Dovidio & S. L. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 1-34). Orlando: Academic Press.
- Ellemers, N., Kortekaas, P., & Ouwerkerk, J. (1999). Self-categorisation, commitment to the group and group self-esteem as related but distinct aspects of social identity. *European Journal of Social Psychology*, 29, 371-389.
- Flacke, J. M., Amaro, H., Jenkin, S. W., Kunitz, S., Levy, J., Mikon, M., & Yu, E. (1995). Panel I: Epidemiology of minority health. *Health Psychology*, 14, 592-600.
- Frijda, N. H. (1986). *The emotions*. Cambridge: Cambridge University Press.
- Frijda, N. H. (1996). Passions: Emotion and socially consequential behavior. In R. D. Kavanaugh, B. Zimmerberg, & S. Fein (Eds.), *Emotion: Interdisciplinary perspectives* (pp. 1-27). Hillsdale: Erlbaum.
- Gaertner, S. L., & Dovidio, J. F. (1986). The aversive form of racism. In J. F. Dovidio & S. L. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 61-90). Orlando: Academic Press.

- Gaertner, S. L., Sedikides, C., & Graetz, K. (1999). In search of self-definition: Motivational primacy of the individual self, motivational primacy of the collective self, or contextual primacy? *Journal of Personality and Social Psychology*, 76, 5-18.
- Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. Englewood Cliffs: Prentice Hall.
- Greenwald, A. G., Banaji, M. R., & Rudman, L. A. (2002). A unified theory of implicit attitudes, stereotypes, self-esteem, and self-concept. *Psychological Review*, 109, 3-25.
- Hafer, C. L., & Olson, J. M. (1989). Beliefs in a just world and reactions to personal deprivation. *Journal of Personality*, 57, 799-823.
- Hansen, N., & Sassenberg, K. (2005). *Does social identification harm or serve as a buffer? The impact of social identification on anger after experiencing social discrimination*. Unpublished manuscript. University of Jena, Germany.
- Janoff-Bulman, R. (1979). Characterological versus behavioral self-blame: Inquiries into depression and rape. *Journal of Personality and Social Psychology*, 37, 1798-1809.
- Jetten, J., Branscombe, N. R., Schmitt, M. T., & Spears, R. (2001). Rebels with a cause: Group identification as a response to perceived discrimination from the mainstream. *Personality and Social Psychology Bulletin*, 27, 1204-1213.
- Jones, E. E., Farina, A., Hastorf, A. H., Markus, H., Miller, D. T., & Scott, R. A. (1984). *Social stigma: The psychology of marked relationships*. New York: Freeman.



- Jost, J. T. (1995). Negative illusions: Conceptual clarification and psychological evidence concerning false consciousness. *Political Psychology*, 16, 397-424.
- Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and the production of false consciousness. *British Journal of Social Psychology*, 33, 1-27.
- Jost, J. T., & Hunyady, O. (2002). The psychology of system justification and the palliative function of ideology. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology* (Vol. 13, p. 111-153). Chichester: Wiley.
- Jost, J. T., & Major, B. (2001). *The psychology of legitimacy: Emerging perspectives on ideology, justice, and intergroup relations*. Cambridge: Cambridge University Press.
- Jöreskog, K. G., & Sörbom, D. (1996). *User's reference guide*. Chicago: Scientific Software International.
- Katz, I., & Hass, R. G. (1988). Racial ambivalence and American value conflict: Correlational and priming studies of dual cognitive structures. *Journal of Personality and Social Psychology*, 55, 893-905.

- Keck, W. (2004). Zuwanderer und Ausländer in Deutschland [Immigrants and foreigners in Germany]. In H.-H. Noll & R. Habich (Eds.), *Datenreport 2004 – Zahlen und Fakten über die Bundesrepublik Deutschland, Teil II: Objektive Lebensbedingungen und subjektives Wohlbefinden im vereinten Deutschland* (pp. 576-583) [*Data-report 2004 – Figures and facts of Germany, Part II: Objective living conditions and subjective well-being in a united Germany*]. Bonn: Bundeszentrale für politische Bildung. Retrieved May 24, 2005, from <http://www.gesis.org/Publikationen/Aufsaeetze/ZUMA/2004.htm>
- Kelley, H. H. (1973). The process of causal attribution. *American Psychologist*, 28, 107-128.
- Kessler, T., Mummendey, A., & Leisse, U.-K. (2000). The personal-group discrepancy: Is there a common information basis for personal and group judgment? *Journal of Personality and Social Psychology*, 79, 95-109.
- Kobrynowicz, D., & Branscombe, N. R. (1997). Who considers themselves victims of discrimination? Individual difference predictors of perceived gender discrimination in women and men. *Psychology of Women Quarterly*, 21, 347-363.
- Leach, C. W., Spears, R., & Branscombe, N. R. (2003). Malicious pleasure: Schadenfreude at the suffering of another group. *Journal of Personality and Social Psychology*, 84, 932-943.
- Lerner, M. J. (1980). *The belief in a just world: A fundamental delusion*. New York: Plenum.
- Lerner, M. J., & Miller, D. T. (1978). Just world research and the attribution process: Looking back and looking ahead. *Psychological Bulletin*, 85, 1030-1051.

- Levy, S. R., Ayduk, O., & Downey, G. (2001). The role of rejection sensitivity in people's relationships with significant others and valued social groups. In M. R. Leary (Ed.), *Interpersonal rejection* (pp. 251-289). London: Oxford University Press.
- Luthanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin*, 18, 302-318.
- Mackie, D. M., Devos, T., & Smith, E. R. (2000). Intergroup emotions: Explaining offensive action tendencies in an intergroup context. *Journal of Personality and Social Psychology*, 79, 602-616.
- Mackie, D. M., & Smith, E. R. (2002). Intergroup emotions and the social self: Prejudice reconceptualized as differentiated responses to outgroups. In J. P. Forgas & K. D. Williams (Eds.), *The social self. Cognitive, interpersonal, and intergroup perspectives* (pp. 309-326). New York: Psychology Press.
- Major, B. (1987). Gender, justice, and the psychology of entitlement. In P. Shaver & C. Hendrick (Eds.), *Review of personality and social psychology* (Vol. 7, pp. 124-148). Beverly Hills: Sage.
- Major, B. (1989). Gender differences in comparisons and entitlement: Implications for comparable worth. *Journal of Social Issues*, 45, 99-116.
- Major, B. (1994). From social inequality to personal entitlement: The role of social comparisons, legitimacy appraisals, and group membership. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 26, pp. 293-355). New York: Academic Press.

- Major, B., Gramzow, R., McCoy, S. K., Levin, S., Schmader, T., & Sidanius, J. (2002). Perceiving personal discrimination: The role of group status and legitimizing ideology. *Journal of Personality and Social Psychology*, 82, 269-282.
- Major, B., Kaiser, C. R., & McCoy, S. K. (2003a). It's not my fault: When and why attributions to prejudice protect self-esteem. *Personality and Social Psychology Bulletin*, 29, 772-781.
- Major, B., & Schmader, S. (1998). Coping with stigma through psychological disengagement. In J. K. Swim & C. Stangor (Eds.), *Prejudice: The target's perspective* (pp. 219-241). San Diego: Academic Press.
- Major, B., & Schmader, S. (2001). Legitimacy and the construal of social disadvantage. In J. T. Jost & B. Major (Eds.), *The psychology of legitimacy: Emerging perspectives on ideology justice and intergroup relations* (pp. 176-204). Cambridge: Cambridge University Press.
- Major, B., Quinton, W. J., & McCoy, S. K. (2002). Antecedents and consequences of attributions to discrimination: Theoretical and empirical advances. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 34, pp. 251-330). San Diego: Academic Press.
- Major, B., Quinton, W. J., McCoy, S. K., & Schmader, T. (2000). Reducing prejudice: The target's perspective? In S. Oskamp (Ed.), *Reducing prejudice* (pp. 211-237). New York: Sage.
- Major, B., Quinton, W. J., & Schmader, T. (2003b). Attributions to discrimination and self-esteem: Impact of group identification and situational ambiguity. *Journal of Experimental Social Psychology*, 39, 220-231.

- McCoy, S. K., & Major, B. (2003). Group identification moderates emotional responses to perceived prejudice. *Personality and Social Psychology Bulletin*, 29, 1005-1017.
- Mendoza-Denton, R., Downey, G., Purdie, V. J., Davis, A., & Pietrzak, J. (2002). Sensitivity to status based rejection: Implications for African American students' college experience. *Journal of Personality and Social Psychology*, 83, 896-918.
- Miller, C. T., & Major, B. (2000). Coping with stigma and prejudice. In T. F. Heatherton, R. E. Kleck, M. R. Hebl, & J. G. Hull (Eds.), *The social psychology of stigma* (pp. 243-272). New York: Guilford.
- Miller, D. T. (2001). Disrespect and the experience of injustice. *Annual Review of Psychology*, 52, 527-553.
- Monteith, M. J., & Voils, C. I. (2001). Exerting control over prejudiced responses. In G. B. Moskowitz (Ed.), *Cognitive social psychology: The Princeton Symposium on the legacy and future of social cognition* (pp. 375-388). Mahwah: Erlbaum.
- Mossakowski, K. (2003). Coping with perceived discrimination: Does ethnic identity protect mental health? *Journal of Health and Social Behavior*, 44, 318-331.
- Mummendey, A. (1995). Positive distinctiveness and social discrimination: An old couple living in divorce. *European Journal of Social Psychology*, 25, 657-670.
- Mummendey, A., & Otten, S. (2004). Aversive discrimination. In M. B. Brewer & M. Hewstone (Eds.), *Emotion and motivation* (pp. 298-318). Malden: Blackwell Publishers.

- Mummendey, A., Otten, S., Berger, U., & Kessler, T. (2000). Positive-negative asymmetry in social discrimination: Valence of evaluation and salience of categorization. *Personality and Social Psychology Bulletin*, 26, 1258-1270.
- Mummendey, A., & Wenzel, M. (1999). Social discrimination and tolerance in intergroup relations: reactions to intergroup differences. *Personality and Social Psychology Review*, 3, 158-174.
- Neckerman, K. M., & Kirschenman, J. (1991). Hiring strategies, racial bias, and inner-city workers. *Social Problems*, 38, 433-447.
- Noh, S., & Kaspar, V. (2003). Perceived Discrimination and Depression: Moderating Effects of Coping, Acculturation, and Ethnic Support. *American Journal of Public Health*, 93, 232-238.
- Nolen-Hoeksema, S., & Girgus, J. S. (1994). The emergence of gender differences in depression during adolescence. *Psychological Bulletin*, 115, 424-443.
- Operario, D., & Fiske, S. (2001). Ethnic identity moderates perceptions of prejudice: Judgments of personal versus group discrimination and subtle versus blatant bias. *Personality and Social Psychology Bulletin*, 27, 550-561.
- Otten, S., Mummendey, A., & Blanz, M. (2001). Intergroup discrimination in positive and negative outcome allocations: Impact of stimulus valence, relative group status, and relative group size. In M. A. Hogg & D. Abrams (Eds.), *Intergroup relations: Essential readings* (pp. 188-204). New York: Psychology Press.
- Pettigrew, T. F., & Martin, J. (1987). Shaping the organizational context for Black American inclusion. *Journal of Social Issues*, 43, 41-78.

- Pettigrew, T. F., & Meertens, R. W. (1995). Subtle and blatant prejudice in western Europe. *European Journal of Social Psychology, 25*, 57-75.
- Phinney, J. (1990). Ethnic identity in adolescence and adulthood: A review and integration. *Psychological Bulletin, 108*, 499-514.
- Phinney, J. (1996). When we talk about American ethnic groups, what do we mean? *American Psychologist, 51*, 918-927.
- Pinel, E. C. (1999). Stigma consciousness: The psychological legacy of social stereotypes. *Journal of Personality and Social Psychology, 76*, 114-128.
- Pinel, E. C. (2002). Stigma consciousness in intergroup contexts: The power of conviction. *Journal of Experimental Social Psychology, 38*, 178-185.
- Pinel, E. C. (2004). You're just saying that because I'm a woman: Stigma consciousness and attributions to discrimination. *Self and Identity, 3*, 39-51.
- Postmes, T., & Branscombe, N. R. (2002). Influence of long-term racial environmental composition on subjective well-being in African Americans. *Journal of Personality and Social Psychology, 83*, 735-751.
- Postmes, T., Branscombe, N. R., Spears, R., & Young, H. (1999). Comparative processes in personal and group judgments: Resolving the discrepancy. *Journal of Personality and Social Psychology, 76*, 320-338.
- Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology, 67*, 741-763.

- Roseman, I. J., Wiest, C., & Swartz, T. S. (1994). Phenomenology, behaviors, and goals differentiate discrete emotions. *Journal of Personality and Social Psychology*, 67, 206-221.
- Runciman, W. G. (1966). Relative deprivation and social justice: A study of attitudes to social inequality in twentieth century England. Berkeley: University of California Press.
- Sassenberg, K., & Hansen, N. (2005). *The impact of regulatory focus on affective responses to social discrimination*. Unpublished manuscript. University of Jena, Germany.
- Schmitt, M. T., & Branscombe, N. R. (2002a). The internal and external causal loci of attribution to prejudice. *Personality and Social Psychology Bulletin*, 28, 484-492.
- Schmitt, M. T., & Branscombe, N. R. (2002b). The meaning and consequences of perceived discrimination in disadvantaged and privileged social groups. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology* (Vol. 12, pp. 167-199). Chichester: Wiley.
- Sellers, R. M., & Shelton, J. N. (2003). The role of racial identity in perceived racial discrimination. *Journal of Personality and Social Psychology*, 84, 1079-1092.
- Shelton, J. N. (2000). A reconceptualization of how we study racial prejudice. *Personality and Social Psychology Review*, 4, 374-390.
- Sidanius, J., & Pratto, F. (1993). The dynamics of social dominance and the inevitability of oppression. In P. Sniderman & P. E. Tetlock (Eds.), *Prejudice, politics, and race in America today* (pp. 173-211). Stanford: Stanford University Press.



- Sidanius, J., & Pratto, F. (1999). *Social dominance: An intergroup theory of social hierarchy and oppression*. New York: Cambridge University Press.
- Sigelman, C. K., & Singleton, L. C. (1986). Stigmatization in childhood: A survey of developmental trends and issues. In S. Ainlay, G. Becker, L. Coleman (Eds.), *The dilemma of difference: A multidisciplinary view of stigma* (pp. 185-208). New York: Plenum.
- Smith, H. J., & Oritz, D. J. (2002). Is it just me? The different consequences of personal and group relative deprivation. In I. Walker & H. J. Smith (Eds.), *Relative Deprivation. Specification, development, and integration* (pp. 91-115). Cambridge: University Press.
- Smith, T. W., Glazer, K., Ruiz, J. M., & Gallo, L. C. (2004). Hostility, anger, aggressiveness, and coronary heart disease: an interpersonal perspective on personality, emotion, and health. *Journal of Personality*, 72, 1217-1270.
- Spencer, S. J., Steele, C. M., & Quinn, D. M. (1999). Stereotype threat and women's math performance. *Journal of Experimental Social Psychology*, 35, 4-28.
- Steele, C. M. (1997). A threat in the air: How stereotypes shape the intellectual identities and performance. *American Psychologist*, 52, 613-629.
- Steele, C. M., & Aronson, J. (1995). Stereotype vulnerability and the intellectual test performance of African-Americans. *Journal of Personality and Social Psychology*, 69, 797-811.
- Stouffer, S. A., Suchman, E. A., DeVinney, L. C., Star, S., & Williams, R. M. (1949). *The American soldier: Vol. 1. Adjustment during army life*. Princeton: Princeton University Press.

- Swim, J. K., Hyers, L. L., Cohen, L. L., & Ferguson, M. J. (2001). Everyday sexism: Evidence for its incidence, nature, and psychological impact from three daily diary studies. *Journal of Social Issues*, 57, 31-53.
- Swim, J. T., & Stangor, C. (1998). *Prejudice from the target's perspective*. Santa Barbara: Academic Press.
- Tajfel, H. (1978). Social categorization, social identity and social comparison. In H. Tajfel (Ed.), *Differentiation Between Social Groups* (pp. 61-76). London: Academic Press.
- Tajfel, H. (1981). *Human groups and social categories*. Cambridge: Cambridge University Press.
- Tajfel, H. (1982). Social psychology of intergroup relations. *Annual Review of Psychology*, 33, 1-39.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Monterey: Brooks/Cole.
- Taylor, D. M., Wright, S. C., & Porter, L. E. (1994). Dimensions of perceived discrimination: The personal/group discrimination discrepancy. In M. P. Zanna & J. M. Herman (Eds.), *The psychology of prejudice: The Ontario Symposium* (Vol. 7, pp. 233-255). Hillsdale: Erlbaum.
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, 103, 193-210.
- Tomaka, J., & Blascovich, J. (1994). Effects of justice beliefs on cognitive appraisals of and subjective physiological, and behavioral responses to potential stress. *Journal of Personality and Social Psychology*, 67, 732-740.

- Treiman, D. J., & Hartmann, H. I. (1981). *Women, work, and wages: Equal pay for jobs of equal value*. Washington, DC: National Academy Press.
- Tropp, L. R., & Wright, S. C. (2001). Ingroup identification as the inclusion of ingroup in the self. *Personality and Social Psychology Bulletin*, 27, 585-600.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group. A self-categorization theory*. Oxford: Basil Blackwell.
- Weber, U., Mummendey, A., & Waldzus, S. (2002). Perceived legitimacy of intergroup status differences: its prediction by relative ingroup prototypicality, *European Journal of Social Psychology*, 32, 449-470.
- Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Journal of Personality and Social Psychology*, 92, 548-573.
- Weiner, B. (1995). *Judgments of responsibility: A foundation for a theory of social conduct*. New York: Guilford.
- Weiner, B., Perry, R. P., & Magnusson, J. (1988). An attributional analysis of responses to stigmas. *Journal of Personality and Social Psychology*, 55, 738-748.
- Wong, C. A., Eccles, J. S., & Sameroff, A. (2003). The influence of ethnic discrimination and ethnic identification on African American adolescents' school and socio-emotional adjustment. *Journal of Personality*, 71, 1197-1232.
- Yinger, J. M. (1994). *Ethnicity: Source of strength? Source of conflict?* Albany: State University of New York Press.

- Zagefka, H., & Brown, R. (2005). Comparisons and perceived deprivation in ethnic minority settings. *Personality and Social Psychology Bulletin*, 31, 468-482.

## APPENDIX

*Table 7: Standardized regression weights from multiple regressions of self-directed anger (SDA) and other-directed anger (ODA) on attribution and social identification in Study 1 (N = 67), Study 2 (N = 94), and Study 4 (N = 103).*

	Study 1		Study 2		Study 4	
	SDA	ODA	SDA	ODA	SDA	ODA
Attribution1 contrast (social -1, external 0, internal 1)	.20*	-.46***	.52***	-.23*	.35***	-.24*
Attribution2 contrast (social 0, external -1, internal 1)	.63***	-.47***	.40***	-.23*	.17	-.39***
Identification	-.12	.04	.01	.31***	-.03	-.05
Attribution1 x Identification	.23*	.03	.21**	.01	.24*	.05
Attribution2 x Identification	-.06	.06	-.08	.07	.04	-.03

Note: \*:  $p < .05$ , \*\*:  $p < .01$

## SUMMARY

Psychologists agree that being a target of social discrimination is associated with negative psychological and physiological consequences in the long run (for an overview see Clark, Anderson, Clark, & Williams, 1999). To date, research on the affective response of being a target of social discrimination has focused primarily on depressive mood (for an overview see Major, Quinton, & McCoy, 2002). First, this research presented extends the previous research by investigating the impact of social discrimination on two immediate affective responses, namely self- and other-directed anger. Second, previous research has shown that social identification moderates the impact of social discrimination on depressive mood (e.g., Branscombe, Schmitt, & Harvey, 1999; McCoy & Major, 2003). The impact of social identification on both types of anger when facing a negative treatment was therefore examined. Third, specific beliefs (e.g., legitimizing myth of social stereotypes, Crocker, Major, & Steel, 1998) are likely to legitimize a negative treatment that is attributed to own group membership (for an overview see Jost & Major, 2001). Thus, including perceived legitimacy as a further factor would extend the research considerably. Five studies aimed to investigate these three goals by using different social groups and domains.

The first goal was addressed in Studies 1-4. The type of attribution of the negative treatment was predicted to impact differently on self- and on other-directed anger. In line with the prediction, a negative treatment attributed to social discrimination and to external factors results in higher levels of other-directed anger compared to negative treatment attributed to internal factors. Conversely, a negative treatment attributed internally results in higher levels of self-directed anger compared to a treatment attributed to social discrimination or to external factors.

Besides, Studies 1-4 focussed on the second goal, which was to examine the impact of social identification in this context. The type of attribution of a negative treatment was expected to moderate the impact of social identification on self-directed anger. As hypothesized, the results revealed that stronger identification resulted in less self-directed anger after an attribution to social discrimination (i.e. buffering effect), but not after an external or an internal attribution. In part, Study 3 assessed the causal direction of the effect: Social identification impacted on self-directed anger and not the other way around. This effect only occurred when a negative treatment was attributed to social discrimination; no relationship between the two variables was found when it was attributed to the inappropriate behavior of the perpetrator. Furthermore, the buffering impact of social identification on self-directed anger when facing social discrimination was found both in scenario studies (Studies 1-3) and also in real life experiences of social discrimination (Study 4).

Study 5 pursued the third goal. This study set out to test whether the perceived legitimacy of a negative group-based treatment moderates the effect of social identification on self-directed anger. Only when a negative group-based treatment was attributed to social discrimination, i.e. it was perceived to be illegitimate, strong social identification served as a *buffer* and lead to a decrease in self-directed anger. This impact was reversed if the negative group-based treatment was attributed to differentiation, i.e. it was perceived to be legitimate. In this case, strong social identification *harmed* the individual's emotional vulnerability by increasing levels of self-directed anger.

In conclusion, the research presented here could extend previous findings regarding the impact of social identification on depressive mood as a response to social discrimination to the affective response of self- and other-directed anger. The results presented here are a first step to shedding light on the previous contradictory results regarding the impact of social identification on depressive mood after experiencing social discrimination (e.g., Branscombe et

al., 1999; McCoy & Major, 2003). These results are a further step towards a better understanding of the impact of social identification on affective responses following the experience of a negative group-based treatment which is perceived as illegitimate social discrimination or legitimate differentiation.



## ZUSAMMENFASSUNG

Unter Psychologen herrscht Einigkeit, dass länger andauerndes, wiederholtes Erleben sozialer Diskriminierung zu negativen psychologischen und physiologischen Konsequenzen führt (für einen Überblick s. Clark, Anderson, Clark, & Williams, 1999). Die bisherige Forschung zur affektiven Reaktion auf soziale Diskriminierung hat sich hauptsächlich auf die Betrachtung von depressiver Stimmung beschränkt (für einen Überblick s. Major, Quinton, & McCoy, 2002). Zum einen erweitert die vorliegende Arbeit die bisherige Forschung, in dem sie erstmalig den Einfluss von sozialer Diskriminierung auf zwei sofortige affektive Reaktionen, selbst- und fremdgerichteter Ärger, in den Blick nimmt. Zum zweiten hat bisherige Forschung belegt, dass soziale Identifikation den Einfluss von sozialer Diskriminierung auf depressive Stimmung moderiert (z.B. Branscombe, Schmitt, & Harvey, 1999; McCoy & Major, 2003). Daher wurde untersucht, ob es auch einen Einfluss sozialer Identifikation auf beide Arten von Ärger nach der Erfahrung einer negativen Behandlung gibt. Zum dritten können spezifische Überlegungen (z.B. der legitimierende Mythos von sozialen Stereotypen, Crocker, Major, & Steel, 1998) eine negative Behandlung, die man aufgrund der eigenen Gruppenzugehörigkeit erfährt, legitimieren (für einen Überblick s. Jost & Major, 2001). Aus diesem Grund wurde die wahrgenommene Legitimität einer negativen Behandlung als weiterer Faktor in die Forschung einbezogen, um die bisherigen Befunde zu erweitern. Diese drei Aspekte wurden in fünf Studien mit verschiedenen sozialen Gruppen und in unterschiedlichen Domains untersucht.

Der erste Aspekt wurde in den Studien 1-4 behandelt. Die Art der Attribution der negativen Behandlung sollte einen unterschiedlichen Einfluss auf selbst- und fremdgerichteten Ärger haben. Wie erwartet führte eine negative Behandlung aufgrund sozialer Diskriminierung und aufgrund externaler

Faktoren zu höherem fremdgerichteten Ärger im Vergleich zu einer negativen Behandlung aufgrund internaler Faktoren. Umgekehrt führte eine negative Behandlung aufgrund internaler Faktoren zu höherem selbstgerichteten Ärger im Vergleich zu einer negativen Behandlung aufgrund sozialer Diskriminierung oder externaler Faktoren.

Darüber hinaus behandelten die Studien 1-4 ebenfalls den zweiten Aspekt dieser Arbeit, den Einfluss der sozialen Identifikation in diesem Kontext zu identifizieren. Es wurde die Vorhersage gemacht, dass der Einfluss der sozialen Identifikation auf selbstgerichteten Ärger durch die Art der Attribution einer negativen Behandlung moderiert wird. Wie erwartet führte höhere soziale Identifikation nach einer Attribution auf soziale Diskriminierung zu weniger selbstgerichtetem Ärger (*puffernder Effekt*) nicht aber nach einer externalen oder internalen Attribution. Studie 3 analysierte die kausale Richtung dieses Effektes: Soziale Identifikation beeinflusste selbstgerichteten Ärger, aber nicht anders herum. Dieser Effekt trat nur dann auf, wenn eine negative Behandlung auf soziale Diskriminierung attribuiert wurde. Kein Zusammenhang der beiden Variablen wurde nach einer Attribution auf unangemessenes Verhalten des Täters gefunden. Dieser puffernde Effekt sozialer Identifikation auf selbstgerichtete Wut nach sozialer Diskriminierung wurde sowohl in Szenariostudien (Studien 1-3) als auch für reale eigene Erfahrungen von sozialer Diskriminierung (Studie 4) gefunden.

Der dritte Aspekt dieser Dissertation wurde in Studie 5 bearbeitet. Diese Studie untersuchte, ob wahrgenommene Legitimität einer negativen gruppenbasierten Behandlung den Effekt von sozialer Identifikation auf selbstgerichteten Ärger moderiert. Nur wenn eine negative gruppenbasierte Behandlung auf soziale Diskriminierung attribuiert wurde (d.h. wenn sie als illegitim wahrgenommen wird), wirkte starke soziale Identifikation als Puffer und führte zu einer Abnahme von selbstgerichtetem Ärger. Dieser Effekt drehte sich um, wenn eine negative gruppenbasierte Behandlung auf Differenzierung

attributioniert wurde (d.h. wenn sie als legitim wahrgenommen wurde). In diesem Fall verstärkte hohe soziale Identifikation die individuelle emotionale Verletzbarkeit durch höheren selbstgerichteten Ärger.

Zusammenfassend bleibt festzuhalten, dass es mit den vorliegenden Studien gelungen ist, bisherige Befunde hinsichtlich der affektiven Reaktion auf soziale Diskriminierung zu erweitern. Analog zur depressiven Stimmung als affektive Reaktion auf soziale Diskriminierung liefern die Studien Erkenntnisse in Bezug auf den Einfluss sozialer Identifikation auf selbst- und fremdgerichteten Ärger. Mit Hilfe dieser Ergebnisse gelingt es, bisherige kontroverse Befunde zum Einfluss der sozialen Identifikation auf depressive Stimmung nach sozialer Diskriminierung näher zu betrachten und aufzulösen (z.B. Branscombe et al., 1999; McCoy & Major, 2003). Diese Ergebnisse sind somit ein weiterer Schritt zu einem besseren Verständnis vom Einfluss sozialer Identifikation auf affektive Reaktionen nach der Erfahrung einer negativen gruppenbasierten Behandlung, die entweder als illegitime soziale Diskriminierung oder als legitime Differenzierung wahrgenommen wird.

## **CURRICULUM VITAE**

### **Persönliche Angaben**

Name: Nina Hansen  
Geburtsdatum: 24.09.1974  
Geburtsort: Flensburg  
Familienstand: ledig

### **Werdegang**

August 1981 – Juni 1985	GRUNDSCHULE ENGELSBY, Flensburg
August 1985 – Juni 1994	GOETHE-SCHULE, Städt. Gymnasium in Flensburg
Juli 1994 – Mai 1995	Diverse Praktika
Mai 1995 – August 1995	BOSTON, USA Sprachaufenthalt
Oktober 1995 – Juni 2001	GEORG-AUGUST UNIVERSITÄT, Göttingen Diplomstudiengang der Sozialwissenschaften (Sozialpsychologie, Soziologie, Jura, BWL)
Februar 2000 – November 2000	WELTAUSSTELLUNG EXPO 2000, Hannover Projektmanagement
August 2001 – Juni 2002	UNIVERSITY OF CALIFORNIA, Berkeley / USA Stipendium als Graduate Student im Programm für Persönlichkeits- und Sozialpsychologie
seit August 2002	FRIEDRICH-SCHILLER-UNIVERSITÄT, Jena Wissenschaftliche Mitarbeiterin in der Nachwuchsgruppe „Kognitive und motivationale Determinanten sozialer Diskriminierung“

## **EHRENWÖRTLICHE ERKLÄRUNG**

Ich erkläre hiermit, dass ich mir die Promotionsordnung der Fakultät für Sozial- und Verhaltenswissenschaften bekannt ist.

Ferner erkläre ich, dass ich die vorliegende Arbeit selbst und ohne unzulässige Hilfe Dritter angefertigt habe. Alle von mir benutzten Hilfsmittel, persönliche Mitteilungen und Quellen sind in der Arbeit angegeben. Bei der Korrektur der englischen Ausdrucksweise in Teilen der Dissertation half Christine Dobbs gegen Entgelt mit. Weitere Personen waren bei der inhaltlich-materiellen Erstellung der Arbeit nicht beteiligt. Insbesondere habe ich hierfür nicht die Hilfe eines Promotionsberaters in Anspruch genommen. Dritte haben weder unmittelbar noch mittelbar geldwerte Leistungen von mir für die Arbeit erhalten, die im Zusammenhang mit dem Inhalt der vorliegenden Dissertation stehen.

Die Arbeit wurde weder im In- noch im Ausland in gleicher oder ähnlicher Form einer anderen Prüfungsbehörde vorgelegt. Weder früher noch gegenwärtig habe ich an einer anderen Hochschule eine Dissertation eingereicht.

Ich versichere, dass ich nach bestem Wissen die reine Wahrheit gesagt und nichts verschwiegen habe.

Jena, den 23. Juni 2005